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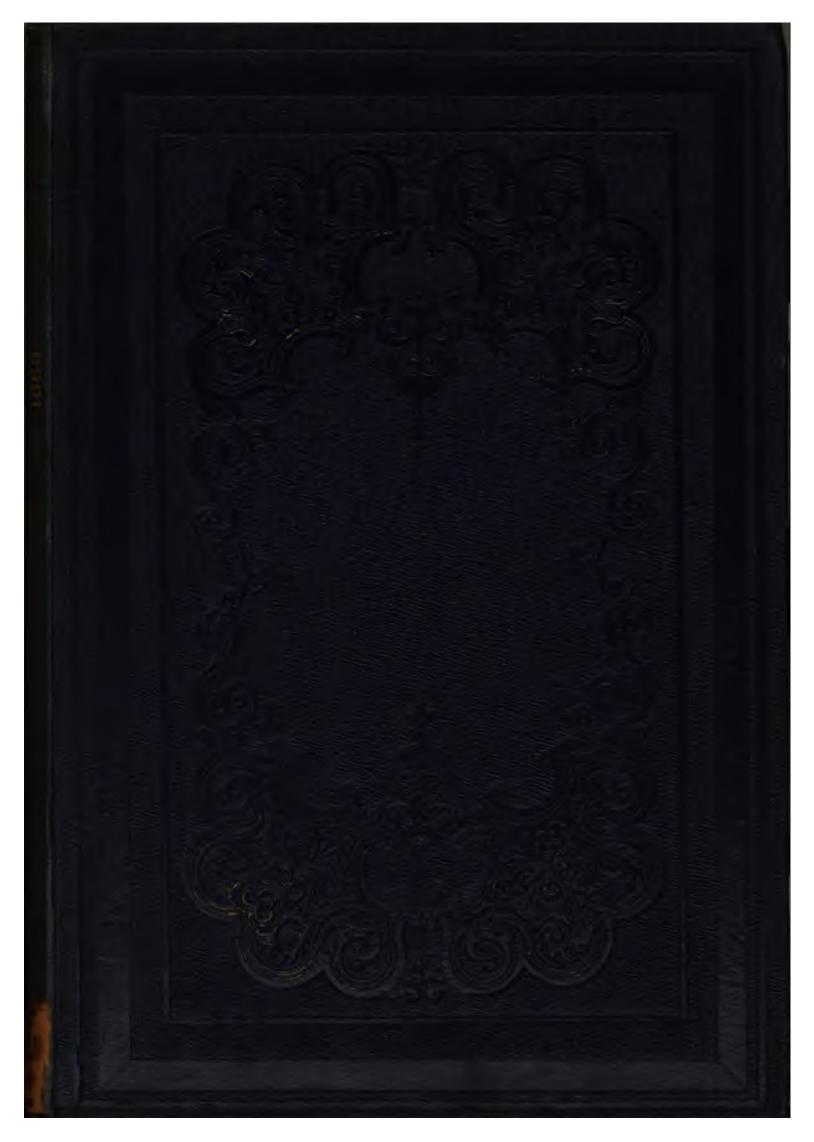
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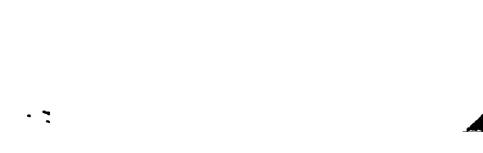
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15 & 16 VICTORIÆ, Cap. 83. Sec. XXXII.



ALPHABETICAL INDEX

OF

PATENTEES AND APPLICANTS FOR PATENTS OF INVENTION,

For the Year 1866.

Printed and Published by Order of the Commissioners of Patents

UNDER THE

ACT of 15 & 16 VICTORIÆ, Cap. 83. Sec. XXXII.

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ALPHABETICAL INDEX

OF

PATENTEES AND APPLICANTS FOR PATENTS OF INVENTION,

FOR THE YEAR 1866.

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Name of Patentec.	Number of Patent.	Date.	Subject-matter of Patent.
	-	A.	
ABBOTT, JAMES	1658	20th June 1866	The better combustion of fuel in steam- boilers and other furnaces.
ABBOTTS, RICHARD WILLIAM	1147	23rd April 1866	Fireplaces or furnaces of malt and other kilns.
ABEGG, FRITZ	974	5th April 1866	Machinery for boring rocks. (Patented by Samuel Richards.)
ABEL, CHARLES DENTON -	348	5th Feb. 1866	Improvements in elastic fabrics, and in the application thereof to the manufacture of boots and shoes. (Communicated by Isaac Heer.)
ABEL, CHARLES DENTON -	849	5th Feb. 1866	Coke ovens. (Communicated by Jacob Bowers.)
Abel, Charles Denton -	871	7th Feb. 1866	Means and apparatus for regulating the supply of steam to stationary, locomotive and marine steam-engines. (Communicated by Charles Achille Tranchant.)
ABEL, CHARLES DENTON -	434	12th Feb. 1866	Gas and air engines. (Communicated by Eugen Langen and Auguste Nicol Otto.)
ABEL, CHARLES DENTON -	846	22nd March 1866	Jacquard looms for weaving cut pile fabrics double. (Communicated by Anton Funk, Carl Emil Becker and Auguste Hoffbauer.)
ABEL, CHARLES DENTON -	1087	12th April 1866	An improved system of drainage for the dwellings of towns and other localities, and apparatus employed in connection therewith. (Communicated by Johann Peter Wilhelm Schmick.)

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Name of Patentee.		Number of Patent.	Date.	Subject-matter of Patent.
ABEL, CHARLES DENTON	-	11 4 8	23rd April 1866	An improved machine or apparatus for rippling or seeding flax. (Communicated by Baron Woldemar von Locuis.)
ABEL, CHARLES DENTON	-	1149	23rd April 1866	Machinery or apparatus for breaking and scutching flax and hemp. (Communicated by Baron Woldemar von Loewis.)
ABEL, CHARLES DENTON	-	1157	24th April 1866	Joints or connections for pipes. (Communicated by Anton Richter.)
ABEL, CHARLES DENTON	-	1223	lst May 1866	Means and apparatus for reducing metallic oxides. (Communicated by Jacob Reese.)
ABEL, CHARLES DENTON	•	1575	8th June 1866	Travelling bags, valises and trunks. (Communicated by Zoheth Sherman Durfee.)
ABEL, CHARLES DENTON	•	1955	28th July 1866	Apparatus for regulating the supply of water and other fluids to steam-boilers and other receptacles. (Communicated by Michael Hervier and Léon Guizot.)
ABEL, CHARLES DENTON	-	2244	31st Aug. 1866	Joints or connections for pipes. Communicated by Anton Richter and Romuald Bozek.)
Abel, Charles Denton	-	2296	7th Sept. 1866	Slide valves for steam-engines. (Communicated by William Bowman Robinson and Zoheth Sherman Durfee.)
Abel, Charles Denton	-	2765	26th Oct. 1866	A new or improved percussion spinning top. (Communicated by Augustin Boulanger.)
Abel, Charles Denton	-	3042	20th Nov. 1866	Improvements in drying tan and in the machinery or apparatus employed for that purpose. (Communicated by Laurent Bréval.)
ABEL, CHARLES DENTON	-	8408	28th Dec. 1866	New or improved means for the prevention of "rot" in potatoes and grapes, and the similar blight in trees, fruits, vegetables, insects and animals. (Communicated by John Francis Bennett.)
ABEL, CHARLES DENTON	•	8444	31st Dec. 1866	Machinery or apparatus for rippling or seeding flax. (Communicated by Baron Woldemar von Loewis.)
ABENHEIM, EMIL	-	164	17th Jan. 1866	An improved construction of watch or time- keeper for watchmen. (Communicated by Johannes Bürk.)
Abenheim, Henry -	•	164	17th Jan. 1866	An improved construction of watch or time- keeper for watchmen. (Communicated by Johannes Bürk.)
ABENHEIM, LEOPOLD -	-	164	17th Jan. 1866	1 '
ABORD, MAURICE	-	1754	2nd July 1866	
Abraham, John	-	2126	18th Aug. 1866	· ·
Absterdam, John	-	554	23rd Feb. 1866	Manufacturing iron and steel and the alloy- age of metals, together with preparing ores for the same.
Ackroyd, Reuben	-	3218	6th Dec. 1866	"Screw gill-boxes" for preparing wool and other fibrous substances.
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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Adams, Arthur John	8420	29th Dec. 1866	Locks and latches.
Adams, Charles	1947	26th July 1866	Sewing machines.
Adams, George	2455	24th Sept. 1866	An improved machine for printing dates on railway tickets and for other like purposes.
Adams, John	1959	28th July 1866	Improvements in the construction of revolver fire-arms and in apparatus employed in the manufacture, also in cartridges to be used therewith.
Adams, Josiah	1065	16th April 1866	Sash fasteners.
Adams, Robert	186	20th Jan. 1866	Machines for graining in imitation of wood and marble. (Patented by George Tomlinson Bousfield.)
Adams, Thomas	479	15th Feb. 1866	Improvements in and applicable to slide valves, pistons and glands.
Adams, Thomas	881	24th March 1866	Watch and chronometer cases.
Adams, Thomas	1946	26th July 1866	A new motive-power engine.
Adamson, Daniel	166	18th Jan. 1866	Vertical steam-boilers for marine and other purposes.
Adelsberger, Daniel G	2358	14th Sept. 1866	Horse hay rakes. (Patented by Richard Robert Riches and Charles James Watts.)
Adir, Patrick	2796	30th Oct. 1866	Means and machinery for clipping horses and other animals.
Adkins, William	1765	3rd July 1866	Certain improvements in taps and dies for tapping and cutting screws, and machi- nery to be employed in effecting the same.
Adley, Charles Coles -	8281	13th Dec. 1866	Construction of telegraph standards and insulators.
Adolph, William	1767	3rd July 1866	Apparatus for obtaining motive-power by means of steam. (Communicated by Jules Claude Louis Charnoz.)
Ager, Wilson	152	17th Jan. 1866	Revolving breech-loading guns.
Ager, Wilson	1852	14th July 1866	An improved mode of preventing the heating and fouling of guns.
Aggio, Constante	1393	16th May 1866	Improved means and apparatus for pre- serving and saving life and property at sea in case of shipwreck.
Alberger, John Louis	1449	23rd May 1866	Metal hoops for casks, tubs, and other like vessels. (Patented by George Hazeltine.)
Albini, Augusto	2243	30th Aug. 1866	Breech-loading fire-arms.
ALBINI, AUGUSTO	2652	13th Oct. 1866	Breech-loading fire-arms.
Alden, Henry Almanzor -	2118	17th Aug. 1866	An improved stuffing for mattresses, chair seats and other like purposes. (Patented by John Henry Johnson.)
ALDERMAN, THOMAS	1122	20th April 1866	Means or apparatus for signalling on and effecting communication between parts of railway trains.
Alderson, Henry James -	826	20th March 1866	Hollow projectiles.
ALEXANDRE, EDOUARD	2798	29th Oct. 1866	Construction of organs.
Allain, Childéric	1722	28th June 1866	Manufacture of metals boxes, tins or cases. (Patented by William Edward Gedge.)
Allanson, William	596	27th Feb. 1866	Shuttles for weaving.
Allbon, Charles Frederick	2810	8th Sept. 1866	An improvement in boots and shoes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ALLEMAND, ALEXANDRE PIERRE [JOSEPH.	1768	3rd July 1866	Improvements in machinery for making bricks, which improvements are also applicable for moulding blocks for building, or for artificial fuel, or for other purposes.
Allen, Edwin	2056	9th Aug. 1866	Machinery for manufacturing envelopes, partly also applicable to other purposes. (Patented by Alfred Vincent Newton.)
Allen, Edwin	8391	24th Dec. 1866	Improvements in cleansing and purifying casks and other vessels, and in machinery or apparatus employed therein.
Allen, James	360	6th Feb. 1866	Envelopes.
Allen, James	1118	20th April 1866	Fastenings for doors, safes, boxes, drawers, and other applications where locks or fastenings are required.
Allen, John Franklin -	2199	25th Aug. 1866	Steam-engines. (Patented by Charles Talbot Porter.)
ALLEN, RICHARD NORTON -	1121	20th April 1866	Manufacture of sheet iron. (Patented by George Haseltine.)
ALLEN, SAMUEL FINTON -	197	22nd Jan. 1866	Feed water heaters for locomotives.
Allen, Thomas	157	17th Jan. 1866	An improvement in the manufacture of iron and other metallic bedsteads, by the application of wooden laths instead of sacking or iron lath bottoms.
Allen, Thomas	2166	23rd Aug. 1866	Machinery or apparatus for cutting splints for making matches.
Allen, William	2561	4th Oct. 1866	An improved mode of forming collars on metallic axles and other articles. (Patented by William Edward Newton.)
Allerton, Reuben German -	675	6th March 1866	An improvement in the manufacture of waterproof paper.
ALLEY, STEPHEN	2087	15th Aug. 1866	Drilling machines.
ALLIES, MATTHEW	158	17th Jan. 1866	An improved holder or fastener for shirt studs, brooches and other personal orna- ments.
Allix, George	970	5th April 1866	Improvements in reefing and furling sails, and in apparatus connected therewith.
Allix, George	1595	12th June 1866	Apparatus for reefing and furling fore and aft sails, in fittings for the same, and improved fittings for the gaff.
Allix, George	· 3366	21st Dec. 1866	Apparatus for raising and lowering window- blinds, windows, maps and other articles, and retaining them in any required posi- tion.
Allman, Herbert	3441	31st Dec. 1866	Certain improvements in the construction of locks and keys.
ALLUM, WILLIAM MC	1772	4th July 1866	Manufacture of machine wires.
Amann, Juan	3169	3rd Dec. 1866	An improved apparatus for the automatical performance of music on pianos, organs and other keyed instruments of like description. (Patented by Marc Antoine François Mennons.)
Ambrose, Edward	259	26th Jan. 1866	Apparatus for lowering boats, part of which apparatus is applicable to other uses.
Ambrose, Edward	1708	27th June 1866	Improvements in venetian blinds and blind fittings, and in machinery for making the same, parts of which machinery may be used for other purposes.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
American Saw Company -	2426	21st Sept. 1866	Securing teeth in saws. (Patented by William Clark.)
American Water proof Cloth [Company.]	964	4th April 1866	Manufacture of carpets and other good having a raised terry or pile face. (Patented by William Edward Newton.)
Ambs, Horatio	46	6th Jan. 1866	Ordnance.
Ames, James Tyler	678	5th March 1866	Construction of ordnance. (Patented by William Edward Newton.)
Amey, Thomas	2478	26th Sept. 1866	An improved process for preserving milk and apparatus connected therewith.
Amies, Nathaniel Jones -	218	23rd Jan. 1866	Certain improvements in the construction of cotton balls.
Amos, Charles Edwards -	863	23rd March 1866	An improved mode of treating waste liquor for the dissipating or utilizing of the same.
Amsler-Laffon, James -	2970	13th Nov. 1866	Breech-loading fire-arms. (Patented by John Garrett Tongue.)
Anderson, James	3363	21st Dec. 1866	Arrangements and apparatus for obtaining motive-power.
Anderson, Mark French -	162	17th Jan. 1866	Refining sugar.
Anderson, William	69	9th Jan. 1866	Mode of and apparatus for extracting liquous from macerated fibres employed in the manufacture of paper.
Anderson, William	863	23rd March 1866	An improved mode of treating waste liquor for the dissipating or utilizing of the same.
Andrew, Alexander Mc -	1574	7th June 1866	Drilling machines. (Patented by William Edward Newton.)
Andrew, Thomas	3286	14th Dec. 1866	Construction of pulleys and lifting gear for raising and lowering weights.
Andrews, Alfred Christmas	623	lst March 1866	Improvements in screw-rivets for boot peg and screw nails for various purposes, and in machinery for the manufacture of screw rivets and screw nails, a part of which im provements in machinery may also b applied to other purposes.
Andrews, Thomas	1911	23rd July 1866	Machines for winding or warping and drying yarns.
ANEZ, LOUIS MARIE	2647	12th Oct. 1866	Improvements in heating and warming room and other buildings, and in apparatus fo the same. (Patented by William Clark.)
Ange, Gaston Charles, [Marquis of Auxy.]	1693	25th June 1866	Improved apparatus for treating corn and other materials.
Angele, William	1414	18th May 1866	Machines for cutting and harvesting grain and grass crops. (Patented by William Bünger.)
Angelini, Major General -	1294	7th May 1866	A new form of partial or total baths for man or animals. (Patented by Vital de Tivoli.)
Angelini, Major General -	1295	7th May 1866	A new system of application of pads of india rubber or other elastic materials. (Patented by Vital de Tivoli.)
Angell, Albert	2928	10th Nov. 1866	Coffee hullers. (Patented by Henri Adrien Bonneville.)
Angus, Joseph Cook	98	11th Jan. 1866	Apparatus for drawing off and measuring liquids.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Ansaldi, Ernesto	2934	10th Nov. 1866	An improved steam-engine. (Patented by George White.)
APPLEBY, CHARLES JAMES -	1757	2nd July 1866	Locomotive and traction engines.
APPLEGATH, AUGUSTUS	440	12th Feb. 1866	Printing machines.
APPLEGATH, AUGUSTUS	481	15th Feb. 1866	Printing machines.
APPLEYARD, JOHN	3400	27th Dec. 1866	An improved safety bottle case.
ARBUCELE, GEORGE BENJAMIN [VAUGHAN.]	2349	12th Sept. 1866	Immediately giving the alarm in case of fire in any building or ship whatsoever, where- ever it may be placed.
Archdeacon, Montagu -	857	22nd March 1866	A new or improved kind of expanding window blinds, cornice poles, blind rollers, and other window fittings, also picture rods and stair rods.
Ardrey, Samuel Bradley -	293	30th Jan. 1866	Machinery or apparatus for grinding or glazing spindles for preparing and spinning machinery, and other spindles or shafts.
Armstrong, Frank	8246	8th Dec. 1866	Sewing machinery.
Armstrong, Frederick [Woolcot.	2001	2nd Aug. 1866	Machinery for cutting dove-tail joints. (Patented by Samuel Thompson Armstrong.)
Armstrong, Henry Prittie	2558	4th Oct. 1866	Means or apparatus employed in carburet- ting gas.
Armstrong, John	1554	5th June 1866	Machinery and apparatus for making envelopes and paper bags. (Patented by John Henry Johnson.)
Armstrong, Joseph	1577	8th June 1866	Manufacture of crossings for the permanent way of railways.
Armstrong, Robert Wil- [Liams.	402	9th Feb. 1866	Improvements in preparing clay, dust and similar materials, for making earthen and other ware, and in machinery for moulding hollow articles in earth, clay and other like materials.
Armstrong, Samuel Thomp- [son.	2001	2nd Aug. 1866	Machinery for cutting dove-tail joints. (Communicated by Frederick Woolcot Armstrong.)
Armstrong, William John -	2988	10th Nov. 1866	An improvement in the construction of ships' anchors.
Arnaud, Charles	438	12th Feb. 1866	Improvements in copying presses, which improvements are also applicable to mangles or linen presses.
ARNOLD, ANDREW REYNOLDS	1164	25th April 1866	Machinery for making twist drills. (Patented by William Clark.)
ARNOULD, ETIENNE	1169	26th April 1866	Spring mattresses. (Patented by Henri Adrien Bonneville.)
Aron, Maurice	2521	29th Sept. 1866	Apparatus for steering vessels. (Patented by William Clark.)
ARTHUR, ALPRED	279	29th Jan. 1866	Hydraulic machinery.
Ash, Edward	1071	16th April 1866	Machinery for combing wool or other fibrous substances.
Ashberry, Philip Henry -	740	10th March 1866	Improvements in machinery for the manufac- ture of articles usually made in Britannia metal, pewter, German or nickel silver, and silver, and improvements in the manufacture and ornamentation of such articles, parts of which last named im- provements are also applicable to other purposes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Ashdown, John	7	lst Jan. 1866	Apparatus for manœuvering and steering ships. (Communicated by George Banks.)
Ashton, Joseph	1733	29th June 1866	Manufacture of studs and buttons.
Ashton, Ralph	3028	19th Nov. 1866	Improvements in or applicable to safety cabs and like vehicles.
Ashton, Robert Howe	797	17th March 1866	Pictures obtained upon paper, glass, porce- lain or other surfaces with transparent or semi-transparent materials.
Ashton, Robert Howe	3393	24th Dec. 1866	Producing printing surfaces and carvings from moulds obtained by the aid of pho- tography.
Ashton, William Shorrock	2831	lst Nov. 1866	Certain improvements in machinery or apparatus for preparing and spinning cotton and other fibrous materials.
Ashworth, Elijah	1336	10th May 1866	Certain improvements in mechanism or ap- paratus for turning over leaves, either in a folded, stitched or bound state.
ASHWORTH, ELIJAH [Ashworth, Elija.]	2410	20th Sept. 1866	Improvements in "portfolios" or "cases" for holding musical publications, periodicals, manuscripts and the like matter, and in binders to be used therewith.
Ashworth, George	1336	10th May 1866	Certain improvements in mechanism or ap- paratus for turning over leaves, either in a folded, stitched or bound state.
Ashworth, George	2410	20th Sept. 1866	Improvements in "portfolios" or "cases" for holding musical publications, periodicals, manuscripts and the like matter, and in binders to be used therewith.
Ashworth, Henry -	167	18th Jan. 1866	Lubricating certain frictional surfaces in steam-engines.
Asquith, John William -	2297	7th Sept. 1866	Improvements in machinery for cross raising the pile or nap of woollen and other cloths or fabrics, parts of which said improve- ments are also applicable to cross cutting machines.
Asquith, Joseph	2297	7th Sept. 1866	Improvements in machinery for cross raising the pile or nap of woollen and other cloths or fabrics, parts of which said improve- ments are also applicable to cross cutting machines.
Assumpcao, Clemente Au- [Gusto D'.	3072	22nd Nov. 1866	An improved construction of iron for ironing. (Patented by Clinton Edgcumbe Brooman.)
Astbury, Joseph	1813	11th July 1866	A new and improved arrangement of furnace to be applied to steam-boilers, which is also applicable for other purposes.
ATKINSON, MATHEW HUTTON	1804	8th May 1866	Valves for steam and other engines.
Atkinson, Thomas, junior -	2440	22nd Sept. 1866	An improved machine for wringing and mangling.
ATKINSON, WILLIAM	701	8th March 1866	Improvements in apparatus employed in casting in metals and other materials, and in the means employed for forming such apparatus.
ATKINSON, WILLIAM NEW-	2993	15th Nov. 1866	Power looms.
ATTERBURY, JOHN HENRY -	3120	27th Nov. 1866	Improved means and machinery for the manufacture of earthenware and other articles made from plastic materials.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ATWATER, JOHN BOWMAN -	385	8th Feb. 1866	An improved apparatus for raising or forcing water by the aid of steam and air, for supplying locomotive tenders and for other purposes.
ATWATER, JOHN BOWMAN -	684	6th March 1866	An improved mode of and apparatus for working air-engines. (Patented by Alfred Vincent Newton.)
Austin, Charles Edward -	1820	11th July 1866	Improvements in apparatus applicable to sewers and drains, for separating the fluid and solid parts of sewage.
Austin, William	1851	11th May 1866	Improvements in joining pipes and tubes, and in the packing to be employed for that purpose.
Auxy, ÿ Gaston Charles [Ange Marquis of.	. 1693	25th June 1866	Improved apparatus for treating corn and other materials.
AVERELL, ELLICOTT DAVID -	1569	7th June 1866	Electro-magnetic striking attachments for paper ruling machines. (Patented by John Garrett Tongue.)
Avery, Cyrus	744	12th March 1866	Holding devices for boring tools. (Patented by Thomas Adam Mathieson.)
Avery, John Gilbert	892	8th Feb. 1866	An improved apparatus for raising water in shower baths. (Communicated by Henry Wilson Lee.)
AVERY, JOHN GILBERT	2000	2nd Aug. 1866	Churns. (Communicated by Leander Langdon.)
Avet, The Chevalier Henry	469	14th Feb. 1866	Improvements in photography and in the process of producing printing surfaces and other like surfaces by the aid of photographic agency. (Patented by Michael Henry.)
AYDON, ENOCH HARRISON -	1788	6th July 1866	Improvements in drawing or exhausting and forcing fluids, and in instruments or apparatus applicable to such purposes.
Aydon, Enoch Habrison -	2347	12th Sept. 1866	Machinery for cutting rags, ropes and other articles, for paper-making and other purposes.
Aydon, Harrison	2476	25th Sept. 1866	Improvements in furnaces and in the method and apparatus for supplying such furnaces with fuel or other combustible matters.
Ayre, Algernon Sydney -	3877	22nd Dec. 1866	Improvements in means or apparatus for drying wheat, barley, rice and other grain, which improvements are also applicable to the drying of seeds, coffee and other matters.
Ayrz, Horatio Harriman -	8877	22nd Dec. 1866	Improvements in means or apparatus for drying wheat, barley, rice and other grain, which improvements are also applicable to the drying of seeds, coffee and other matters.
Azambuja, D'Antoine	262	26th Jan. 1866	Machinery for the manufacture of asphalted felt. (Patented by Richard Archibald Brooman.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
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Babcock, George Herman -	3452	31st Dec. 1866	Improvements in the method of effecting the cut-off in steam-engines, and also in the regulator for controlling the speed of steam-engines. (Patented by George Tomlinson Bousfield.)
Bachmann, August Heinrich [Cornelius.	1308	8th May 1866	Improved apparatus for draining or drying steam previous to its employment for working steam-engines or for other purposes. (Patented by William Ireland.)
Backhouse, George	8127	28th Nov. 1866	Machinery or apparatus for manufacturing cardboard or pasteboard.
Bacon, Francis Walker -	2725	22nd Oct. 1866	An improved construction of salinometer pot. (Patented by Alfred Vincent Newton.)
Badcock, James	2569	5th Oct. 1866	Manufacture of ornaments for the wrist.
BADGER, ROLLA	795	17th March 1866	Shears and scissors.
Baggs, Isham	3269	13th Dec. 1866	Manufacture and treatment of hydro-chloric and nitric acids.
Bagley, Richard	2079	14th Aug. 1866	An improved screw stock.
Bagshawe, John James -	2907	8th Nov. 1866	Improvements in furnaces for burning or consuming smoke, more especially appli- cable to the furnaces of boilers.
Bailey, John	3257	11th Dec. 1866	Looms for weaving. (Patented by Clinton Edgcumbe Brooman.)
BAILEY, RICHARD	587	26th Feb. 1866	An improved method of and apparatus for signalling and giving alarm on railways.
BAILEY, ROBERT	2805	30th Oct. 1866	Construction of steam-boilers. (Patented by William Edward Newton.)
BAILEY, WILLIAM	1707	27th June 1866	Preserving animal substances.
BAILEY, WILLIAM HENRY -	2391	18th Sept. 1866	A combined bath, travelling trunk and self-rocking cradle.
Baillargeon, Pierre	3384	22nd Dec. 1866	Improved apparatus applied to millstones for grinding wheat and other grains. (Patented by William Edward Gedge.)
BAILLEUL, PIERRE VICTOR -	2165	23rd Aug. 1866	An improved reaping machine.
Baines, William	89	10th Jan. 1866	Manufacture of telegraphic and signal pillars or posts.
Baines, William	1803	9th July 1866	Improvements in the manufacture of tele- graph and signal pillars or posts, and in rolling iron for other uses.
Baker, Abner	527	20th Feb. 1866	An improved automatic apparatus for roast- ing coffee and other substances. (Patented by Augustus Bryant Childs.)
Baker, Charles Stuart -	117	13th Jan. 1866	Harvesting machines known as reaping machines, mowing machines and combined reaping and mowing machines. (Communicated by Sewell Gillam.)
Baker, Christopher de [Graff.	2119	17th Aug. 1866	Puddling furnaces. (Patented by William Clark.)
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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BAKER, FRANCIS BEYAN	845	3rd Feb. 1866	Process of dyeing and manufacture of textile fabrics.
BAKER, FRANCIS BRYAN -	3285	14th Dec. 1866	Improvements in stretching or tentering, and in dressing or finishing lace or other fabrics, and in machinery or apparatus employed therein.
BAKER, FREDERIC THOMAS -	403	9th Feb. 1866	Breech-loading firearms.
BAKER, HAYDN MOZAET -	2026	6th Aug. 1866	Manufacture of carbonates and bi-carbonates of soda and potash, the soluble and insoluble silicates of soda and potash, and muriatic acid, from chlorides of sodium and potassium. (Patented by William Edward Newton.)
BAKER, JAMES (LieutCol.) -	726	9th March 1866	Magnetic engines.
BAKER, JAMES (LieutCol.) -	1135	21st April 1866	Thermo-electric batteries.
BAKER, JAMES (LieutCol.) -	1718	27th June 1866	Thermo-electric magnetic batteries and engines.
BAKER, JAMES (LieutCol.) -	3039	19th Nov. 1866	Magnetic engines.
BAKER, JAMES (LieutCol.) -	8319	17th Dec. 1866	Cable stoppers.
BAKER, JAMES (LieutCol.) -	3351	20th Dec. 1866	Thermo-electric and magnetic apparatus.
Baker, James Wood	2596	9th Oct. 1866	Machinery or apparatus for spinning cotton and other fibrous materials.
Baker, John	2254	1st Sept. 1866	Reaping machines.
BAKER, ROBERT BRECKEN- [RIDGE.	1924	24th July 1866	An improved method of and apparatus for preventing incrustation in steam-boilers. (Patented by Edward Primerose Howard Vaughan.)
Baker, Thomas	215	23rd Jan. 1866	Improvements in sash fastenings, which improvements are also applicable to other purposes.
Baker, Whitmore	3347	20th Dec. 1866	Improvements in means or apparatus for lighting fires, which improvements are also applicable to warming apartments, and for other heating purposes.
BAKER, WILLIAM EMERSON -	398	9th Feb. 1866	An improved apparatus or machine for removing the seeds or stones from raisins and other dried fruit. (Patented by William Robert Lake.)
BAKER, WILLIAM EMERSON -	2038	7th Aug. 1866	An improved apparatus or machine for removing the seeds or stones from raisins and other dried fruit. (Patented by William Robert Lake.)
Baker, William James -	1748	2nd July (1866	An improved method of and apparatus for facilitating the passage of a guard or other person along the outside of a railway passenger train in motion.
BAKEWELL, FREDERICK COL-	796	17th March 1866	Machinery for rolling and straightening cylindrical metallic rods and tubes. (Communicated by Joseph Sidney Seaman.)
Balckom, John	3073	22nd Nov. 1866	An improved apparatus for tapping beer casks and other like vessels containing liquids under pressure. (Patented by William Robert Lake.)
Baldwin, Aaron Charles -	696	7th March 1866	Rotary steam-engines.
BALDWIN, MATTHIAS WHAR-	1441	22nd May 1866	Rotary steam-engines. (Patented by Alfred Vincent Newton.)
Baldwin, Thomas	2332	11th Sept. 1866	Improvements in steam-boilers and in apparatus connected therewith.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BALIN, PAUL MARIE	1447	23rd May 1866	Manufacture of paper hangings.
Ball, George Palmer	124	13th Jan. 1866	Means of preserving timber from decay. (Patented by Alexander Prince.)
Ball, George Palmer	1846	13th July 1866	Means of preserving timber from decay. (Patented by Alexander Prince.)
BALLYHIGUE, BARON ALFRED [ANTOINE DE CANTILLON DE.	1940	26th July 1866	A new and improved explosive compound mixture. (Patented by Henfi Adrien Bonneville.)
BANCROFT, JAMES MASSEY -	2637	12th Oct. 1866	Certain improvements in canisters or receptacles for containing tobacco.
Banfill, John	158	17th Jan. 1866	An improved coal scuttle.
Bang, Henry Joseph	950	3rd April 1866	An improved double action piano-forte. (Patented by George Haseltine.)
Banks, George	7	1st Jan. 1866	Apparatus for manœuvering and steering ships.
Варту, Јони	1272	4th May 1866	(Patented by John Ashdown.) Machinery for preparing wool and other fibrous materials for combing and spinning.
Baranowski, Jean Joseph -	2361	14th Sept. 1866	An improved apparatus or appliance to be used in conjunction with corks for closing bottles, jars and other similar receptacles.
. Barbarin, Arthur	2007	3rd Aug. 1866	Improvements in the mode of securing corks and stoppers in the necks or mouths of bottles, jars and other vessels. (Patented by John Henry Johnson.)
BARBARIN, ARTHUR	2790	29th Oct. 1866	An improved metallic band fastener. (Patented by John Henry Johnson.)
BARBER, DAVID HENRY	1995	2nd Aug. 1866	A new or improved implement for the use of boot and shoe makers. (Patented by John Henry Johnson.)
Barber, George William -	2315	8th Sept. 1866	Improvements in water-closets, and in valves and regulating apparatus for the same and other purposes.
BARBER, JOSEPH INGALL -	578	24th Feb. 1866	Skates.
BARBER, THOMAS WALTER	2209	28th Aug. 1866	Breech-loading fire-arms.
BARBER, WILLIAM	2209	28th Aug. 1866	Breech-loading fire-arms.
BARBOUR, SAMUEL	888	26th March 1866	Machinery for finishing sewing thread or yarn.
Bardell, William Poole -	2287	6th Sept. 1866	Gun and pistol locks.
BARDWELL, CARLOS	8429	29th Dec. 1866	Fastenings for pocket-books, diaries, memorandum books and other similar articles. (Patented by George Haseltine.)
BARKER, ALFRED	686	6th March 1966	Manufacture of wadding.
BARKER, CHARLES MATHEW -	1092	18th April 1866	Apparatus used in distilling fatty and other matters.
Barker, David	1871	18th July 1866	Improvements in the construction of apparatus for mixing, pressing and moulding coal and other substances, for the formation of artificial fuel, and dividing the same into blocks; such apparatus being also applicable to other analogous operations.
BARKER, DAVID	2534	3rd Oct. 1866	Manufacture of artificial fuel.
BARKER, GEORGE	881	2nd Feb. 1866	Sewing-machines.
BARKER, JAMES	2468	25th Sept. 1866	Apparatus employed in printing and folding paper hangings and woven fabrics.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Barker, John	3062	21st Nov. 1866	Preserving corn or other grain, beans or seeds. (Communicated by Nicholas Valentin Haussmann.)
Barker, Thomas	3166	3rd Dec. 1866	An improved apparatus for the delivery of fog signals upon railways.
Barker, Thomas	3279	13th Dec. 1866	Improvements in steam-boilers and in applying heat thereto.
BARLOW, ELIAS	2405	19th Sept. 1866	Certain improvements in steam-engines.
BARLOW, ELIAS	2406	19th Sept. 1866	Certain improvements in machinery or apparatus for planing metals.
BARLOW, HENRY BERNOULLI-	791	17th March 1866	Certain improvements in the construction of fans or blowers. (Communicated by George Leach.)
BARLOW, HENRY BERNOULLI-	815	20th March 1866	Machinery for spinning and doubling. (Communicated by Heinrich Zwanziger and William Henry Rhodes.)
BARLOW, HENRY BERNOULLI-	1426	21st May 1866	Machinery for preparing and spinning hemp and other fibrous substances. (Communicated by Ernest Bazin.)
Barlow, James	468	14th Feb. 1866	Bleaching, dyeing, printing and sizing cotton and other yarns or threads.
BARLOW, PETER	1679	23rd June 1866	An improved method of exhibiting the time on the dial-plates of clocks and watches,
BARLOW, WILLIAM HENRY	260	26th Jan. 1866	Manufacture of railway bars.
Barnard, Camille	3443	31st Dec. 1866	Improved means of and apparatus for advertising. (Patented by John Henry Johnson.)
Barnes, Merrick Mortimer	1277	4th May 1866	Machinery for converting reciprocating into rotary motion. (Patented by George Tomlinson Bousfield.)
BARNES, SMITH	335	3rd Feb. 1866	Mules for spinning and doubling.
BARNES, WALTER RICHARD -	2784	27th Oct. 1866	Fire-escapes.
BARNETT, FREDERICK	1141	23rd April 1866	An improved aquatic fire-work.
BARNINGHAM, WILLIAM -	в	1st Jan. 1866	Machinery and apparatus for charging blast and other furnaces.
Baron, John	1217	30th April 1866	Certain improvements in carding-engines.
BARR, CHARLES JOSEPH -	662	5th March 1866	An improved fire alarm.
Barr, James	1711	27th June 1866	Pistons and cylinders.
Barrabé, Eugéne Pierre -	1724	28th June 1866	Machinery or apparatus for cleaning and decorticating pulse, grain and seeds. (Patented by John Henry Johnson.)
Barron, Thomas Jabez -	8111	26th Nov. 1866	A new and improved method or process for converting iron into steel by the action of certain gases, and for producing gases for such purpose.
BARRY, JAMES, J. P	525	20th Feb. 1866	An improved dye.
BARTHOLOMEW, CHARLES -	94	11th Jan. 1866	Apparatus used in getting coal.
BARTLETT, JOSEPH WEATHER- [BY.	1391	16th May 1866	Sewing machines.
BARTRAM, WALKER BATES -	1270	4th May 1866	Certain improvements in sewing machines.
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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Barwick, James	3206	5th Dec. 1866	Improvements in packing for the piston rods of steam engines, and of pumps for raising or forcing hot fluids, acids and other corrosive matters, which improvements are also applicable to the packing of the stuffing boxes or glands of the spindles or axes of cocks or valves used for the passage of steam, hot fluids or acids.
Basker, Charles	2505	28th Sept. 1866	Apparatus for raising and stacking straw and other agricultural produce.
Bass, William	3095	24th Nov. 1866	Certain improvements in machinery to be employed in the making of nails, spikes and other articles of a similar character.
Basson, Wilhelm	253	25th Jan. 1866	Improvements in the boxes or bearings of axles of railway and other similar carriages, and in the method of or arrangements for lubricating such axles. (Patented by Francis Wise.)
BASSOT, BROTHERS	3005	16th Nov. 1866	Method of and apparatus for stopping or closing vessels. (Patented by George Davies.)
Bassot, Brothers	3006	16th Nov. 1866	Inkstands. (Patented by George Davies.)
BATAILLE, LOUIS	1079	17th April 1866	Improvements in crushing, separating and washing ores and other substances, and in apparatus employed therein. (Patented by Clinton Edgcumbe Brooman.)
BATCHELDER, HAZEN JAY -	1999	2nd Aug. 1866	A new and useful invention having reference to the manufacture of horse-shoes or various other articles.
BATCHELDER, JOHN MONT- [GOMERY.	2329	10th Sept. 1866	Electric telegraph conductors. (Patented by John Henry Johnson.)
BATCHELOR, PERCIVAL ASHTON	91	11th Jan. 1866	Construction, arrangement and application of retorts and settings in combination with machinery or apparatus for the manufacture of coal or other gases.
BATCHELOR, PERCIVAL ASHTON	2528	1st Oct. 1866	Construction and arrangement of retorts and settings in combination with machinery or apparatus for the manufacture of coal or other gases.
BATEMAN, HYDE	1566	6th June 1866	Pumps and fire-engines.
BATEMAN, HYDE	3149	30th Nov. 1866	Pumps and fire-engines.
BATEMAN, HYDE	3162	lst Dec. 1866	Corkscrews.
Bates, Frederick	785	16th March 1866	Fulling machines.
BATES, WILLIAM	785	16th March 1866	Fulling machines.
BATHIAS, CLAUDE MARIE -	2979	14th Nov. 1866	An improved apparatus for registering the speed of machinery or the distance travelled by vehicles.
Bathoe, Charles	2134	20th Aug. 1866	An improved method of and apparatus for securing or protecting corks or stoppers in bottles and other similar vessels.
BATHOE, CHARLES	2320	10th Sept. 1866	A new or improved composition to be employed in architectural mouldings and for other useful and decorative purposes.
BAUDET, PAUL	273	27th Jan. 1866	Differential screw apparatus. (Patented by Richard Archibald Brooman.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.	
Bauman, Frederick	1980	lst Aug. 1866	Improved machinery or apparatus and p cesses for the manufacture of paper pu from wood and other fibrous materials.	ulp
Bauwens, Felix Lievin -	1010	9th April 1866	An improved process for recovering cott waste and similar matters after they he been soiled in cleaning machinery otherwise.	ave
Baxter, Charles Francis -	2084	14th Aug. 1866	Improvements in waterproofing text fabrics, and in preserving leather, co wood and vulcanized india-rubber, a terra cotta, stucco, brick and like su stances.	rk, dso
Baxter, John 🗀 🚭	1587	11th June 1866	Safes or receptacles for valuable property.	
BAXTER, WILLIAM HENRY -	565	23rd Feb. 1866	Treatment of brewers' and distillers' grain	ns.
BAYLEY, EDWARD HODSON -	889	27th March 1866	Carts for distributing water, liquid many and other fluids over roads and lands.	ure
Bayley, John Clowes -	2495	27th Sept. 1866	Sheathing of iron ships.	
BAYLEY, THOMAS	3193	5th Dec. 1866	Certain improvements in the manufacts of hats or coverings for the head, and apparatus connected therewith.	in
Bayliss, Benjamin	2374	15th Sept. 1866	Manufacture of iron.	
BAYLISS, HENRY	587	21st Feb. 1866	Brushes or cleaners for cleaning gun barr and other tubular articles.	
BAYLISS, MOSES	1900	21st July 1866	Machinery for the manufacture of bolts a spikes and other similar articles.	,nd
Bayliss, Samuel	1603	13th June 1866	Breech loading fire-arms.	
BAYLISS, WILLIAM	2859	3rd Nov. 1866	Certain improvements in the manufacture anchors.	; Oi
BAYLISS, WILLIAM, the younger	1505	29th May 1866	Construction of continuous wrought-ir fencing hurdles and gates.	OT
BAYNE, WALTER	2173	23rd Aug. 1866	An improved hat stretcher.	
Bazin, Ernest	910	29th March 1866	Improvements in recovering sunken shor vessels, and in the apparatus relation thereto. (Patented by Henri Adrien Bonneville.)	ing
Bazin, Ernest	1426	21st May 1866	Machinery for preparing and spinning her and other fibrous substances. (Patented by Henry Bernoulli Barlow.)	mp
Bazin, James Amiraux -	1818	8th May 1866	Improvements in cordage, webbing a similar articles, and in machinery manufacturing the same. (Patented by George Tomlinson Bousfield)	for
BEACH, ALBERT	2899	7th Nov. 1866	An improved chuck for holding drills a other tools. (Patented by Charles Churchill.)	
Beach, Alfred Ely	2491	26th Sept. 1866	Improvements in the collection and delivered fetters, parcels and other freight, and apparatus for the same. (Patented by William Clark.)	
BEACHER, EDWARD	807	19th March 1866	Machinery for mining and working cominerals, stone and other earthy matter	
Beadon, George	1100	19th April 1866	Means employed in attaching knobs to a spindles of mortise and other similar loc or fastenings.	the
Beale, John	1402	17th May 1866	An improved rotary engine to be used pumping fluids or gases, or as a mot power.	for

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BEANES, EDWARD	2645	12th Oct. 1866	Refining or decolorizing sugar and syrup.
BEARD, ELEAZER JUDSON -	1208	28th April 1866	An improved construction of fastening for baling bands. (Communicated by George Newton Beard.)
Beard, George Newton -	1208	28th April 1866	An improved construction of fastening for baling bands. (Patented by Eleazer Judson Beard.)
Beard, John	868	7th Feb. 1866	Certain improvements in reaping and mow- ing machines.
Beard, John	2667	16th Oct. 1866	Improvements in furnaces and in construct- ing and actuating the moveable fire bars of furnaces.
BEATH, CHABLES MC	2788	29th Oct. 1866	Improvements in the treatment or distilla- tion of shale, coal and other bituminous substances, and in the means or apparatus employed therefor.
BEATTIE, WILLIAM GEORGE -	49	6th Jan. 1866	An improved apparatus for lubricating purposes.
BEAUMONT, THOMAS RICHARD	1862	17th July 1866	Certain improvements in flyers for spinning, roving or slubbing cotton or other fibrous substances.
BEAUMONT, WALTER	1979	lst Aug. 1866	Apparatus for holding or releasing cords, chains, ropes and bands.
BECKER, CARL EMIL	846	22nd March 1866	Jacquard looms for weaving cut pile fabrics double. (Patented by Charles Denton Abel.)
Becker, Jules	1313	8th May 1866	An improved method for packing up bottles.
Becker, Jules	2833	lst Nov. 1866	An improved apparatus for stoppering bottles.
BECKETT, JOSEPH	571	24th Feb. 1866	Machinery for engraving and etching rollers
Вискетт, Јозерн	1019	10th April 1866	Machinery for engraving and etching rollers and other surfaces.
Beckett, Samuel	298	30th Jan. 1866	Machinery or apparatus for grinding or glazing spindles for preparing and spinning machinery, and other spindles or shafts.
BECKS, ARTHUR THOMAS -	1263	4th May 1866	Manufacture or treatment of iron.
Bedford, William Glenn -	2422	21st Sept. 1866	An improved fabric to be used for the manufacture of driving belts, hose, and for other useful purposes. (Patented by George Davies.)
BEDSON, GEORGE	485	15th Feb. 1866	Machinery for rolling wire and wire rods.
BEDWELL, WILLIAM HENRY -	1245	2nd May 1866	An improvement in umbrellas.
BEECHING, CHARLES	1705	26th June 1866	Ships or other navigable vessels to be employed in conveying liquid cargoes.
Berston, James	1102	19th April 1866	An improved composition for coating or covering ships' bottoms and other surfaces subjected to the action of sea water. (Patented by Robert Hamilton.)
Begg, William	1210	28th April 1866	Arrangement of furnaces and apparatus con- nected therewith for facilitating the com- bustion of smoke, and for preventing the cold air from going into the flues during the act of firing.
BEHRENS, HENRY JOHN	1674	22nd June 1866	An improved construction of rotary engine. (Patented by Alfred Vincent Newton.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BEL, ADOLPHE	498	16th Feb. 1866	Improved machinery or apparatus for reducing the thickness of parts of calf skins or of other skins or hides. (Patented by William Edward Gedge.)
Belfield, Samuel	8850	20th Dec. 1866	Manufacture of elastic and ribbed fabrics.
BELJAMBE, PAUL	2929	10th Nov. 1866	An improved greasing apparatus to diminish friction. (Patented by Henry Adrien Bonneville.)
Bell, Henry	2071	13th Aug. 1866	Violins, violas, violoncellos and guitars.
Bell, Joseph	2119	17th Aug. 1866	Puddling furnaces. (Patented by William Clark.)
Bell, Samuel Alexander -	1324	8th May 1866	Improvements in the manufacture of tapers and of friction matches, and in the means of igniting friction matches.
Bell, William	1708	26th June 1866	Manufacture of white lead. (Patented by William Robert Lake.)
Bell, William	8133	28th Nov. 1866	Manufacture of white lead. (Patented by William Robert Lake.)
Bellamy, William	1895	21st July 1866	Apparatus used for imbibing or sucking in liquids, known as "bombillas."
Belleville, Julien François	1	14th March 1866	Construction and arrangement of springs.
Belleville, Julien François	2976	14th Nov. 1866	A new or improved spring regulator, applicable to various industrial purposes, also applicable as a pressure gauge.
BELLHOUSE, EDWARD TAYLOR	1515	31st May 1866	Certain improvements in the manufacture of "keys," "spanners," "wrenches," "cotters," "nuta" and other articles, and in the apparatus employed therefor.
Bellhouse, Edward Taylor	1516	31st May 1866	Certain improvements in hydraulic pumps and in valves connected therewith, and also in the method of driving or actuating such pumps.
Bellhouse, William	1618	14th June 1866	Hoists.
Bellot, Pierre Josuph, sen.	1800	9th July 1866	An improved looking glass press, including an incombustible strong box.
BELTZER, FRANCOIS	3385	22nd Dec. 1866	Improved machinery or apparatus for sizing cotton, flax, hemp and other thread or yarn.
Bender, John Joseph	950	3rd April 1866	An improved double-action pianoforte. (Patented by George Haseltine.)
Bennett, Alfred	174	19th Jan. 1866	A new or improved instrument or apparatus for giving motion to hand and other fans.
BENNETT, JOHN FRANCIS -	3403	28th Dec. 1866	New or improved means for the prevention of "rot" in potatoes and grapes, and the similar blight in trees, fruits, vegetables, insects and animals. (Patented by Charles Denton Abel.)
BENNETT, ROBERT	2880	10th Sept. 1866	New or improved modes of obtaining and transmitting motive-power, and in the machinery or apparatus employed therefor.
BENNETT, ROBINSON	234	24th Jan. 1866	Looms for weaving.
Bennett, Samuel	1070	16th April 1866	Certain improvements in connection with sizing machines or tape legs.
Benninger, Henry	286	24th Jan. 1866	Looms for weaving. (Patented by George Tomlinson Bousfield.)
Benninger, Jacques	236	24th Jan. 1866	Looms for weaving. (Patented by George Tomlinson Bousfield.)

Bennitt, Pynson Wilmot - 908 22nd Jan. 1866 An improvement or improvements in the manufacture of glass. Benson, George Henry - 2614 9th Oct. 1866 Improvements in the manufacture of able iron and steel, and in the apparatus emblyed in land and ement in the manufacture of able iron and steel, and in the apparatus emblyed in such manufacture. Benson, George Henry - 2616 9th Oct. 1866 Improvements in the manufacture of able iron and steel, and in the apparatus emblyed in such manufacture. Benson, George Henry - 2616 9th Oct. 1866 Improvements in the manufacture and steel, and in the apparatus emblyed in such manufacture. Benson, Sir John, Kht 2618 9th Oct. 1866 Improvements in the manufacture and steel, and in the apparatus emblyed in such manufacture. Benson, John Solomons - 2618 19th June 1866 Improvement in rolling bars for facturing muts. Bentall, Edward Hammond Bentll, James - 16th Nov. 1866 12th N		Subject-matter of Patent.		Date.	Number of Patent.		Name of Patentee.	Na
Bensen, Gerd Jacob - 2568 5th Oct. 1866 Improvements in the manufacture of steel. Benson, George Henry - 2612 9th Oct. 1866 Improvements in the manufacture of steel. Benson, George Henry - 2614 9th Oct. 1866 Improvements in the manufacture of steel. Benson, George Henry - 2616 9th Oct. 1866 Improvements in the manufacture of steel. Benson, George Henry - 2616 9th Oct. 1866 Improvements in the manufacture of steel. Benson, George Henry - 2616 9th Oct. 1866 Improvements in the manufacture of steel, and in the apparatus em therein. Benson, John Knt 2618 9th Oct. 1866 Improvements in the manufacture of steel, and in the apparatus em therein. Benson, John Solomons - 2618 9th Aug. 1866 Improvements in the manufacture of steel, and in the apparatus em therein. Benson, John Solomons - 2618 19th June 1866 Improvements in the effect of shot. Bentall, Edward Hammond Bentall, Edwar	usfield.	Looms for weaving. (Patented by George Tomlinson Boush	1866	24th Jan.	236		NGER, ULRIC	BENNINGE
Benson, George Henry - 2688 5th Oct. 1866	melting	An improvement or improvements in her furnaces for smelting, puddling, me and annealing metals, or for the manuture of glass.	1866	22nd Jan.	208	MOT -	rt, Pynson Wil	BENNITT,
Benson, George Henry - 2614 9th Oct. 1866 Improvements in the melting and cas steel, and in the apparatus em therein. Benson, George Henry - 2616 9th Oct. 1866 Improvements in the manufacture of able iron and steel, and in the apparatus em therein. Benson, George Henry - 2616 9th Oct. 1866 Improvements in the manufacture. Benson, Sir John, Knt 2038 8th Aug. 1866 Processes of jointing and connecting to armour plates used for coverin defending ships, ships' turrets, or be on land sagainst the effect of shot. Bentall, Edward Hammond 1848 19th June 1866 Breech-loading fire-arms. Bentall, Edward Hammond 2876 19th Nov. 1866 19		Manufacture of beet root sugar.	1866	23rd Jan.	225		N, GERD JACOB	Bensen, C
Benson, George Henry - 2614 Senson, George Henry - 2616 Benson, Sir John, Knt 2038 Sth Aug. 1866 Benson, Sir John, Knt 2038 Sth Aug. 1866 Benson, John Solomons - 22nd Dec. 1866 Benson, John Solomons - 22nd Dec. 1866 Bentall, Edward Hammond 1848 Bentall, Edward Hammond 2876 Seth July 1866 Sth Nov. 1866 Improvements in the manufacture of able iron and steel, and in the apparatus em therein. Improvements in the manufacture of all interests in the manufacture of a semily according to any employed therefor. Improvements in the effect of shot. Breech-loading fire-arms. (Patented by Henri Adrica Bonner 1866 Improvements in the manufacture of a ble in the apparatus em therein. Improvements in the manufacture of a ble in the apparatus em therein. Improvements in the manufacture of a ble in the apparatus em therein. Improvements in the manufacture of a ble in the apparatus em therein. Improvements in the manufacture of a ble in the apparatus em therein. Improvements in the manufacture of a ble in the apparatus em therein. Improvements in the manufacture of a ble in the apparatus em therein. Improvements in the manufacture of a ble in the apparatus em therein. Improvements in the manufacture of a ble in the apparatus em therein. Improvements in the manufacture of a ble in the apparatus em therein. Improvements in the manufacture of a ble in the apparatus em therein. Improvements in the manufacture of a ble in the apparatus em therein. Improvements in the manufacture of a ble in the apparatus em therein. Improvements in			1866	5th Oct.	2568	RY -	n, George Heni	BENSON, C
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Benson, Sir John, Knt 2038 8th Aug. 1866 Processes of jointing and connecting to armour plates used for coverin defending ships, ships' turrets, or on land against the effect of shot. Benson, John Solomons - 1848 19th June 1866 19th Nov. 1866		Improvements in the manufacture of m able iron and steel, and in the appar employed in such manufacture.	1866	9th Oct.	2614	BY -	n, George Heni	Benson, C
Benson, John Solomons - 1848 19th June 1866 186		Improvements in the manufacture of and steel, and in the apparatus empl therein.	1866	9th Oct.	2616	RY -	n, George Heni	Benson, C
Bentall, Edward Hammond Bentall, Edward Newalliam	ng and	Processes of jointing and connecting togo armour plates used for covering defending ships, ships' turrets, or batt on land against the effect of shot.	1866	8th Aug.	2038	NT	n, Sir John, Kn	Benson, S
Bentall, Edward Hammond Bental		Breech-loading fire-arms.	1866	22nd Dec.	8882	ONS -	n, John Solomo	BENSON, J
Bentall, Edward Hammond Bentley, James	manu	An improvement in rolling bars for m facturing nuts.			1848	MMOND	LL, EDWARD HA	Bentall,
Bentley, James 2956 12th Nov. 1866 Improvements in stretching woven during the processes of stiffening, drying, or finishing them. Benvenuti, Fortuné Fran- [Cois.] Béranger, Albert 1752 2nd July 1866 Construction of furnaces and kilns. Bérard, Aristide Balt- [Hazard.] Berdan, Hiram 529 20th Feb. 1866 Improvements in the manufacture of st in the apparatus employed therefor of which improvements and appara also applicable to the production for heating purposes. Berdan, Hiram 3253 10th Dec. 1866 Certain improvements in breech-loading fir and in cartridges for the same. (Patented by William Edward New Certain improvements in breech-loading arms, and in cartridges and bullets: same. (Patented by William Edward New Lime and cement kilns. Bergen, Alexander James - 2073 13th Aug. 1866 Improved machinery for gumming printing envelopes and wrappeel letters, newspapers, and small parce	iaws.	Improved machinery for sharpening sav	1866	26th July	1943	MMOND	ll, Edward Ha	Bentall,
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	Number	· · · · · · · · · · · · · · · · · · ·	
Name of Patentee.	of Patent.	Date.	Subject-matter of Patent.
Bernabé, Mayeul	8047	20th Nov. 1866	A new or improved process or method of coating or covering iron and steel with copper or copper alloys. (Patented by Clinton Edgcumbe Brooman.)
Bernard, Augustin	1214	30th April 1866	A process of decolorizing albumen extracted from the red blood of animals.
Bernard, Camille	2137	20th Aug. 1866	Obtaining motive-power. (Patented by John Henry Johnson.)
BERNARD, JULIAN	1346	10th May 1866	Improvements in elevating and forcing water and other fluids, and in the machinery or apparatus connected therewith.
BERNARD, JULIAN	1401	17th May 1866	Motive-power engines, parts of which are specially adapted for raising and forcing water, and for other mining purposes.
Bernard, Julian	1410	18th May 1866	Certain improvements in generating and heating steam, gas and vapours, and in the machinery or apparatus employed therefor.
Bernard, Julian	3029	19th Nov. 1866	Improvements in motive-power engines, parts of which are specially adapted for raising and forcing water, and for other mining purposes.
Berney, Thomas	2294	6th Sept. 1866	Construction of ships and other vessels.
Berney, Thomas	2530	2nd Oct. 1866	Construction and use of projectiles and ordnance and arms.
Berney, Thomas	3291	14th Dec. 1866	Apparatus for bending bars and plates of metal.
Bernieri, Luigi	2997	15th Nov. 1866	Photography.
Berquier, Leon	1290	5th May 1866	An improved method or system of producing mattings or tabby weavings in lace manufactured in twist lace machines. (Patented by James Hartshorn.)
Berrens, Theophilus	655	3rd March 1866	Machinery or apparatus for perforating rocks to facilitate the formation of tunnels, galleries of mines, and for other similar purposes. (Patented by James Stevenson.)
BERBEY, WILLIAM BROUGH -	8428	29th Dec. 1866	An improved composition for cleaning glass and other smooth and bright surfaces.
Berrie, John	287	30th Jan. 1866	Certain improvements in the construction of railways.
BERRY, BENJAMIN, the younger	866	23rd March 1866	Screw gill boxes or hackle frames.
BERRY, JOSIAH	8069	22nd Nov. 1866	Machinery or apparatus for twisting or doubling yarns or threads of wool or other fibrous substances.
BERRY, WILLIAM HENRY -	668	5th March 1866	Steam hammers.
BERTIN, EMIL	998	7th April 1866	An improved fastening for gloves and other articles. (Patented by Clinton Edgcumbe Brooman.)
BERTRAM, GEORGE	8299	15th Dec. 1866	Machinery or apparatus to be used for the manufacture of paper.
BEST, SEALY JAMES	2827	31st Oct. 1866	
BETJEMANN, GEORGE	2592	8th Oct. 1866	Manufacture of articles commonly called "writing" or "library sets," and other similar articles.
Betjemann, George Williad	2592	8th Oct. 1866	Manufacture of articles commonly called "writing" or "library sets," and other similar articles.

Name of Patentee.	Number of Patent.	Date.		Subject-matter of Patent.
Betjemann, John	2592	8th Oct. 1	1866	Manufacture of articles commonly called "writing" or "library sets," and other similar articles.
BETTRLEY, JOSEPH HENRY -	2356	13th Sept. 1	18 66	Ships' anchors.
BETTS, JOHN YELDHAM	2486	26th Sept. 1	18 66	An improved mode of and apparatus for drying corn and other agricultural produce in the straw.
BETTS, WILLIAM	959	4th April 1	866	Coloring capsules.
BEUTHER, EDWARD ADOLPH [HERMANN.	362	6th Feb. 1	866	Axle boxes for railway carriages.
Bevan, Edward	399	9th Feb. 1	.866	Improvements in the construction of furnaces and kilns employed in the manufacture of glass, and in the heating and burning of articles of glass and earthenware.
BEVAN, EDWARD	1467	25th May 1	866	Improved means of and apparatus for warming and keeping warm articles of food, particularly infants' food.
Bibby, James	1965	31st July 1	1866	Certain improvements in machinery or apparatus for manufacturing paper bags.
BIBBY, THOMAS	1965	31st July 1	866	Certain improvements in machinery or apparatus for manufacturing paper bags.
BIBBY, WILLIAM	1708	27th June 1	866	Machinery for combing wool and other fibrous substances.
BICKERTON, JOSEPH	2803	30th Oct. 1	866	Lithographic, zincographic, and typographic printing machines.
Biévez, Désiré	1159	25th April 1	866	An improved furnace or oven for the cooling of window glass, and apparatus to be used therewith.
Bigelow, Asa, jun	575	24th Feb. 1	866	Construction of railways. (Patented by George Haseltine.)
BIGELOW, ERASTUS BRIGHAM	2503	27th Sept. 1	866	Power looms.
BIGELOW, ERASTUS BRIGHAM	2710	19th Oct. 1	866	Power looms.
BIGGLESTON, WILLIAM HENRY	3240	8th Dec. 1	866	Construction of ships' capstans.
BIGWOOD, JOSHUA	3197	5th Dec. 1	866	Improvements in the furnaces of steam- boilers, which improvements may also be applied to other furnaces.
BILLING, EDWIN ISAAC	1977	lst Aug. 1	866	Safes.
BILLINGTON, JAMES	1643	19th June 1	866	Construction of tools for graining and putting in the "bates" or pores representing different timbers.
BILLINGTON, JAMES	3235	8th Dec. 1	866	Construction of tools for graining and putting in the "bates" or pores representing different timbers.
BILLIOTTE, EDMOND VINCENT	2251	1st Sept. 1	866	An improved needle case or holder. (Communicated by Jules Doderet.)
BINDLEY, JOHN	2868	14th Sept. 1	866	Machinery or apparatus to be employed in the manufacture of fish hooks.
Bing, Louis	2855	13th Sept. 1	866	An improved mode of and apparatus for determining the actinic power of light.
BINNEY, BENJAMIN SPENCER	223	23rd Jan. 1	866	Machinery for the manufacture of paper bags. (Patented by William Clark.)
Binns, John	417	10th Feb. 1	866	Improved machinery or apparatus to be employed in the manufacture of jacquard wires used in looms for weaving.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Binns, William	417	10th Feb. 1866	employed in the manufacture of jacquard wires used in looms for weaving.
Birch, George	210	22nd Jan. 1866	Printing yarns.
BIRDSELL, JOSEPH BENJAMIN	2898	7th Nov. 1866	An improved brake for railway carriages. (Patented by George Haseltine.)
BIRDSRLL, VARIUM OGILVA -	2898	7th Nov. 1866	An improved brake for railway carriages. (Patented by George Haseltine.)
BIRKBECK, JOHN ADDISON -	1968	31st July 1866	Washing coal, ores and other minerals.
Вівснорр, Јони	657	3rd March 1866	Certain improvements in steam cultivators, parts of which improvements are applicable to traction engines and to portable engines used for other purposes. (Communicated by Robert Creuzbaur.)
Вівнор, Јони	1329	9th May 1866	Water pressure regulators. (Patented by Joseph Sheldon.)
BIZARD, FELIX	2700	18th Oct. 1866	Improved arrangements of apparatus for storing or holding petroleum and other inflammable liquids. (Patented by Clinton Edgcumbe Brooman.)
BLACKBURN, ALEXANDER [BEWICKE.	1482	21st May 1866	Improvements in preparing lubricating com- pounds, and in lubricating the journals and bearings of machinery.
BLACKBURN, BEWICKE	25	3rd Jan. 1866	Improvements applicable to furnaces or fire- places, for the purpose of more effectually and economically consuming the fuel therein.
Blackman, Edward	2783	27th Oct. 1866	Medicine for the cure of hooping and other coughs.
Blackman, John	2783	27th Oct. 1866	Medicine for the cure of hooping and other coughs.
Blain; James	2668	16th Oct. 1866	Finishing yarns and threads used for weaving and sewing purposes.
BLAIN, THOMAS	1463	25th May 1866	Spinning frames.
BLAIR, JOHN	929	31st March 1866	An improvement in shirts.
Blair, Thomas	1430	21st May 1866	Treating cast iron. (Patented by James Livesey.)
Blair, Thomas	1933	25th July 1866	Refining cast-iron. (Patented by James Livesey.)
BLAKELY, THEOPHILUS ALEX- [ANDER.	92	11th Jan. 1866	Projectiles for breech-loading rifles.
Blanc, Charles Le	3071	22nd Nov. 1866	Machinery or apparatus for raising, lowering, moving, or transporting heavy bodies. (Patented by John Henry Johnson.)
Blanchon, François Armand	1897	21st July 1866	Fire-arms, toy-arms, or detonating toys.
BLATCH, THOMAS	1647	19th June 1866	Rotary and reciprocating engines.
Blavier, Aimé Etienne -	3014	17th Nov. 1866	An improved method of preserving cereals and other alimentary substances, both vegetable and animal.
BLECKMANN, JOHANN HEIN- [RICH AUGUST.	1341	10th May 1866	An improved explosive compound. (Communicated by Wilhelm Fehleisen and Ernest Fehleisen.)
BLEZARD JAMES, the younger	1269	4th May 1866	Self-acting temples for looms for weaving.
BLEZARD, JOHN	1269	4th May 1866	Self-acting temples for looms for weaving.
BLEZARD, NORMAN	1269	4th May 1866	Self-acting temples for looms for weaving.
BLEZARD, THOMAS	1269	4th May 1866	Self-acting temples for looms for weaving.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Blinkhorn, William John -	827	2nd Feb. 1866	Improved apparatus for communicating or signalling between passengers and guard and engine driver of railway trains.
Bliven, Charles	1998	2nd Aug. 1866	Carding-engines. (Patented by George Tomlinson Bousfield.)
Bloch, Nathan	1503	29th May 1866	An improved mode of connecting metallic wires. (Patented by William Edward Newton.)
Blockey, John Sanders -	2129	18th Aug. 1866	Improved machinery or apparatus for the manufacture of paper bags.
Blood, Edwin	437	12th Feb. 1866	Improved machinery for manufacturing paper collars, cuffs, wristbands and other articles of similar character. (Patented by Alfred Vincent Newton.)
BLOOD, EDWIN	1921	24th July 1866	Machinery for burnishing or polishing enamelled paper. (Patented by William Edward Newton.)
Blügel, Alfred	3030	19th Nov. 1866	Manufacture of carbonate of soda. (Patented by Astley Paston Price.)
Blundell, George Thomas	1062	14th April 1866	Screw valves for water-closets.
Boase, William	325	2nd Feb. 1866	Apparatus for measuring and blocking drapery goods, paper hangings, and such like purposes.
Bobœuf, Pierre Alexis [Francisse.	38 3	8th Feb. 1866	Manufacture of artificial coal tars and their solid derivatives, such as phenical soaps and salts.
Bobrownicki, Alexandre -	181	19th Jan. 1866	Means and apparatus for obtaining and applying motive-power. (Patented by William Clark.)
BODMER, JOHN JAMES	1041	12th April 1866	Improvements in the treatment of slag or cinder from blast furnaces, copper smelt- ing and other furnaces, and in apparatus employed therein, which improvements are also applicable to certain processes in the manufacture of iron and steel.
BODMER, JOHN JAMES	1970	31st July 1866	Manufacture of cements, concretes and artificial stone.
BODMER, LOUIS RUDOLPH -	831	21st March 1866	Certain improvements in self-acting mules for spinning. (Communicated by Paul Sée and Louis Couvreur.)
BODMER, LOUIS RUDOLPH -	1343	10th May 1866	Double-cylinder carding-engines. (Communicated by Anton Girardoni.)
BODMER, LOUIS RUDOLPH -	, 2649	13th Oct. 1866	An improved machine for cleaning and carding wool, cotton and other fibrous substances. (Communicated by Paul Gauchez.)
Bodmer, Louis Rudolph -	2650	13th Oct. 1866	The application of enamel to certain friction surfaces of looms for weaving. (Communicated by Edmond Sée and Paul Sée.)
Bodmer, Rudolph	8334	19th Dec. 1866	An improved method of securing the nuts of bolts.
Borddinghaus, Julius	1929	25th July 1866	Means or apparatus for the production of fancy or figure weaving.
BOGGETT, WILLIAM	316	lst Feb. 1866	Gas pipes.
Boggett, William	879	24th March 1866	Manufacture of metal bolts and rods for ship building and other purposes.
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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BOGGETT, WILLIAM	1128	21st April 1866	Guards for pocket books, watches and watch keys.
BOGGETT, WILLIAM	1870	18th July 1866	Elastic fabrics.
Boilley, Lucien	591	26th Feb. 1866	Construction of roads and streets. (Patented by John Henry Johnson.)
Bois, Alphonse Alexis	1542	2nd June 1866	Machinery for drawing and twisting cotton, wool, flax, hemp, silk and other fibrous substances.
Boissenot, Claude Antoine	2597	9th Oct. 1866	Carriage indicators stating the distance travelled, the time when they have been hired or not, and if they are hired or not.
Bollans, Robert Henry	2631	11th Oct. 1866	Improved apparatus for administering vapour baths and fomentations.
Bolton, Francis John	1646	19th June 1866	Mode of transmitting messages by the elec- tric or magnetic telegraph.
Bolvin, Julien	8016	17th Nov. 1866	An improved steam-engine.
BOMEIBLER, EDWIN LOUIS	1207	28th April 1866	Manufacture of steel. (Patented by Alfred Vincent Newton.)
Bon, Louis Adolphe	2527	1st Oct. 1866	Furnaces for treating metals and other matters. (Patented by William Clark.)
BOND, JOSEPH NAPOLEON BONAPARTE.	1	5th Jan. 1866	Improved apparatus for feeding steam-boilers. (Patented by Alfred Vincent Newton.)
BOND, ROBERT	389	8th Feb. 1866	An improved substitute for emery, to be used for cutting, grinding and polishing metal, marble, glass, precious stones and other hard substances.
Bond, William	1038	12th April 1866	Slide valves and reversing gear of engines worked by steam, air or gases.
BONDONNEAU, EMILE	2513	28th Sept. 1866	Means of reproducing signs, characters and other marks, in the transmission of messages and signals by electric telegraph apparatus. (Patented by William Clark.)
Bonelli, Gaetano	1504	29th May 1866	Telegraphic printing apparatus. (Patented by Christine Temple Bowdoin.)
Bonnardel, Arsène	1702	26th June 1866	Manufacture of blocks or pulleys by machinery. (Patented by William Edward Gedge.)
Bonneville, Henri Adrien	18	3rd Jan. 1866	Apparatus for sowing grain or seed, and performing certain other operations connected therewith. (Communicated by Alfred Jean Baptiste Bruillon and Pedro Martinez Lopez.)
Bonneville, Henri Adrien	305	31st Jan. 1866	Manufacture of wrought-iron tubes applicable to different purposes. (Communicated by Cadet Pierre Dubuisson.)
Bonneville, Henri Adrien	806	31st Jan. 1866	Lamps. (Communicated by Victor Delaye Le Paul and Jules Garrigue.)
Bonneville, Henri Adrien	582	21st Feb. 1866	Construction of tubular boilers. (Communicated by Eugène Petry-Chaudoir.)
Bonneville, Henri Adrien	742	12th March 1866	Improved means of ascertaining the weight and postage of letters. (Communicated by Hippolyte Adeon Depierris.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Bonneville, Henri Adrien	743	12th March 1866	Furnels. (Communicated by Marin Chavernot.)
Bonneville, Henri Adrien	910	29th March 1866	Improvements in recovering sunken ships or vessels, and in the apparatus relating thereto.
Bonneville, Henri Adrien	1060	14th April 1866	(Communicated by Ernest Bazin.) Beds for invalids and other sick and infirm
			persons. (Communicated by Madame Sophie Dambrine, Widow Polydore Massiou.)
Bonneville, Henri Adrien	1061	14th April 1866	Apparatus for removing exploded cartridges from breech-loading fire-arms. (Communicated by Charles Victor Plumerel.)
Bonneville, Henri Adrien	1168	26th April 1866	Crinoline skirts. (Communicated by Leon Maxe Werly.)
Bonneville, Henri Adrien	1169	26th April 1866	Spring mattresses. (Communicated by Etienne Arnould.)
Bonneville, Henri Adrien	1472	26th May 1866	Ovens for baking bread and other aliments. (Communicated by Charles Nicolas Athanase Lesobre.)
Bonneville, Henri Adrien	1749	2nd July 1866	Construction of submarine telegraph cables. (Communicated by Pierre François Léon Pérémé.)
Bonneville, Henri Adrien	1750	2nd July 1866	An improved safety lock. (Communicated by Louis Jean Pierre Silvestre,)
Bonneville, Henri Adrien	1751	2nd July 1866	Construction and laying down of subter- raneous telegraph wires. (Communicated by Pierre François Léon Pérémé.)
Bonneville, Henri Adrien	1752	2nd July 1866	Construction of furnaces and kilns. (Communicated by Alexandre Martin and Albert Béranger.)
Bonneville, Henri Adrien	1758	2nd July 1866	Apparatus for applying heat to certain parts of the human hody. (Communicated by Emile Duroux.)
Bonneville, Henri Adrien	1754	2nd July 1866	Making of bricks. (Communicated by Maurice Abord.)
Bonneville, Henri Adrien	1940	26th July 1866	A new and improved explosive compound mixture.
			(Communicated by Baron Alfred Antoine de Cantillon de Ballyhigue and Edward Cookes.)
Bonneville, Henri Adrien	1941	26th July 1866	Steam generators. (Communicated by Henry Petitpierre.)
Bonneville, Henri Adrien	2103	16th Aug. 1866	Manufacture of the wheels of carriages for conveying coals and other minerals, in the working of mines. (Communicated by Etienne Pagat.)
Bonneville, Henri Adrien	2261	3rd Sept. 1866	A new and useful improvement for detaching boats from their davits. (Communicated by Thomas Huntington.)
Bonneville, Henri Adrien	2262	3rd Sept. 1866	Apparatus to feed horses. (Communicated by Annet Anable Faure.)
Bonneville, Henri Adrien	226 3	3rd Sept. 1866	An improved smoke consuming fire-place. (Communicated by Charles René Marcadier.)
Bonneville, Henri Adrien	2264	3rd Sept. 1866	A new and useful improvement in hoop- skirts. (Communicated by Augustus James Colby.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Bonneville, Henri Adrien	2480	26th Sept. 1866	Transmitting fac-simile copies of writings and drawings by means of electric currents. (Communicated by Bernard Meyer.)
Bonneville, Henri Adrien	24 81	26th Sept. 1866	Machinery for carding wool and other fibrous materials. (Communicated by Celestin Martin.)
Bonneville, Henri Adrien	2482	26th Sept. 1866	Machinery for weaving wool and other fibrous material. (Communicated by Celestin Martin.)
Bonneville, Henri Adrien	2483	26th Sept. 1866	Machinery for raising water. (Communicated by Guillaume Saint Romas.)
Bonneville, Henri Adrien	2517	29th Sept. 1866	An improved apparatus for fitting garments. (Communicated by Silas Otis Brigham.)
Bonneville, Henri Adrien	2926	10th Nov. 1866	An improved manure obtained by an improved process of purifying foul waters. (Communicated by Jules Houzeau and Eugène Devedeix.)
Bonneville, Henri Adrien	2927	10th Nov. 1866	An improved apparatus for pumping or ventilating. (Communicated by Paschal Joseph Hognoul.)
Bonneville, Henri Adrien	2928	10th Nov. 1866	Coffee hullers. (Communicated by Albert Angell, Henry Truman Bosturck Hayes and Andrew McKenney.)
Bonneville, Henri Adrien	2929	10th Nov. 1866	An improved greasing apparatus to diminish friction. (Communicated by Paul Beljambe.)
Bonneville, Henri Adrien	2930	10th Nov. 1866	A new and improved sorter and a drilling machine connected therewith. (Communicated by Jacques Lhuillier.)
Bonneville, Henri Adrien	2981	10th Nov. 1866	An improved apparatus to excavate, deepen, scour and remove the mud, slime, sand, earth, shoal, gravel, stones, shingle or such like bodies out of harbours, havens, docks, creeks, guts, bars, channels, water-courses, sluices, basins, lakes, ponds, marshes and similar places. (Communicated by Jean Louis Vergniais and Julien Appollinaire Chéron.)
Bonneville, Henri Adrien	2980	14th Nov. 1866	An improved apparatus to teach book-keeping. (Communicated by Jean Hippolyte Savou-reas.)
Bonneville, Henri Adrien	2981	14th Nov. 1866	A mode of treating the bark of the mulberry tree for the production of a new fibrous substance or vegetable silk. (Communicated by Lucien Tracol-Faye.)
BONNEVILLE, HENRI ADRIEN	3180	4th Dec. 1866	Improvements in the manufacture of white lead and in the vessels connected therewith. (Communicated by John Harvey Hebert.)
BONNOT, CHARLES JULES [CAMILLE.	2336	11th Sept. 1866	An improved machine or apparatus for manufacturing leather straps, belts or bands for driving machinery, and for other purposes. (Patented by William Edward Gedge.)
BOOTH, GEORGE	755	13th March 1866	Manufacture of reaping hooks and sickles.
Воотн, Јону	716	9th March 1866	Certain improvements in metallic pistons.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Воотн, Јонк	2178	24th Aug. 1866	Certain improvements in metallic pistons.
Booth, John Billington -	614	28th Feb. 1866	Flyers used in machinery for preparing. spinning or doubling cotton, wool, flax, silk or other fibrous materials.
Booth, Jonathan Law-	1287	5th May 1866	Improvements in rails for railways and in the mode of and apparatus for producing the same.
Booth, Tempest	2722	22nd Oct. 1866	An improved portable chamber or receptacle for containing articles, whereby the same are caused to retain their heat.
Bore, RICHARD HENRY	217	23rd Jan. 1866	An improved siphon for drawing off liquids.
Borgnet, Alfred	1167	25th April 1866	Furnaces, retorts and apparatus for smelting or treating zinc and other ores.
Bosc, Charles	2597	9th Oct. 1866	Carriage indicators stating the distance travelled, the time when they have been hired or not, and if they are hired or not.
Botterill, John	1253	2nd May 1866	Apparatus for consuming smoke.
Воттом, Јони	142	16th Jan. 1866	The manufacture and application of scales and handles suitable for knives and other articles of cutlery, from substances not hitherto employed for that purpose.
BOTTOM, WILLIAM	142	16th Jan. 1866	The manufacture and application of scales and handles suitable for knives and other articles of cutlery, from substances not hitherto employed for that purpose.
BOTTOMLEY, WILLIAM	2031	7th Aug. 1866	Machinery for fulling woollen cloths.
Botwood, William	1845	10th May 1866	Carriages or vehicles running on two wheels.
Botwood, William	3100	24th Nov. 1866	Apparatus for raising and lowering the heads of carriages.
Boué, Feançois Antoine [Marie.	611	28th Feb. 1866	Improvements in casting metals and in moulds employed therein. (Patented by Richard Archibald Brooman.)
Boulanger, Augustin	2765	26th Oct. 1866	A new or improved percussion spinning top. (Patented by Charles Denton Abel.)
Boulton, Matthew Piers [Watt.	788	10th March 1866	Improvements in generating heat and in applying it for the production of motive-power and steam, also in apparatus employed therein.
Boulton, Matthew Piers [Watt.	2489	26th Sept. 1866	Apparatus for employing the motive-power of jets of fluid.
BOULTON, MATTHEW PIERS [WATT.	2809	30st Oct. 1866	Apparatus for employing the motive-power of jets of fluid.
Boulton, William	358	5th Feb. 1866	Apparatus for manufacturing dishes, plates and other similar articles, from pulverized clay or dust or other suitable materials.
Bourdier, Emile	1655	20th June 1866	Construction of salt cellars and boxes, dishes or vessels containing other condiments.
Bourne, Stephen	1257	3rd May 1866	Treating india-rubber and india-rubber com- pounds, and also india-rubber fabrics.
Bourrieff, Jean Baptiste [Marie Amédée.	2755	25th Oct. 1866	Apparatus for lighting and heating. (Patented by Clinton Edgcumbe Brooman.)
Bourry, Ernest Auguste -	1736	29th June 1866	Embroidering machinery. (Patented by William Clark.)
Bousfield, Edward Tenney	226	23rd Jan. 1866	Construction of steam-boilers.

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Name o	of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Bousfield,	Edward Tenney	1192	27th April 1866	An improved mode of working steam tilling implements.
Bousfield, 1	EDWARD TENNEY	1811	10th July 1866	Construction of steam-boilers.
Bousfield, 1	Edward Tenney	2182	24th Aug. 1866	Construction of reaping and mowing machines.
Bousfield,	Edward Tenney	3050	20th Nov. 1866	Construction of reaping and mowing machines.
Bousfield,	GEORGE TOM- [LINSON.	186	20th Jan. 1866	Machines for graining in imitation of wood and marble. (Communicated by Robert Adams.)
Bousfield,	GEORGE TOM- [LINSON.	236	24th Jan. 1866	Looms for weaving. (Communicated by Henry Benninger, Jacques Benninger, and Ulric Benninger.)
Bousfield,	George Tom- [Linson.	261	26th Jan. 1866	Lamps for burning magnesium. (Communicated by Robert Henry Thurston.)
Bousfield,	George Tom-	687	6th March 1866	Machinery for making eyelets. (Communicated by Thomas Garrick.)
Bousfield,	GEORGE TOM-	699	7th March 1866	Apparatus used in expanding boiler tubes. (Communicated by Richard Dudgeon.)
Bousfield,	George Tom- [Linson.	875	24th March 1866	Portfolios and paper files. (Communicated by Henry Tillinghast Sisson.)
Bousfield,	George Tom- [Linson.	914	29th March 1866	Breech-loading fire-arms. (Communicated by Joshua Gray.)
Bousfield,	GEORGE TOM- [LINSON.	1259	3rd May 1866	Manufacture of yarns or threads and woven fabrics from wool or wool combined with other materials. (Communicated by Stanislas Vigoureux.)
Bousfield,	George Tom- [Linson.	1277	4th May 1866	Machinery for converting reciprocating into rotary motion. (Communicated by Merrick Mortimer Barnes.)
Bouspield,	GEORGE TOM- [LINSON.	1279	4th May 1866	Steps for the spindles of spinning frames. (Communicated by Thomas Marsh.)
Rousfield,	GEORGE TOM- [LINSON.	1318	8th May 1866	Improvements in cordage, webbing and similar articles, and in machinery for manufacturing the same. (Communicated by James Amiraux Bazin.)
Bousfield,	GEORGE TOM- [LINSON.	1507	30th May 1866	Machinery for cutting files. (Communicated by Aaron Chambers.)
Bousfield,	GEORGE TOM- [LINSON.	1518	31st May 1866	Improvements in tanning hides and skins, and in currying leather. (Communicated by Moses Webster Page.)
Bousfield,	GEORGE TOM- [LINSON.	1527	31st May 1866	Preparing fibrous materials for spinning and weaving. (Communicated by Stanislas Vigoureux.)
Bousfield,	GEORGE TOM- [LINSON.	1649	19th June 1866	An improved process of utilizing waste vulcanized india-rubber and manufacturing hard rubber therefrom. (Communicated by Charles McBurney.)
Bousfield,	GEORGE TOM-	1912	23rd July 1866.	Improvements in the manufacture of certain alkaloids derived from aniline and its homologues, and in their transformation into coloring matters suitable for dyeing and printing. (Communicated by Alcide Poirrier and Charles Chappat.)

Name	of Patentee.	Number of Patent.	Date.		Subject-matter of Patent.
Bouspield,	GEORGE TOM- [LINSON.	1913	23rd July	1866	Producing and super-heating steam. (Communicated by James Farquharson McKenzie.)
Bousfield,	GEORGE TOM- [LINSON.	1971	31st July	1866	Manufacture of fuel from peat and such like vegetable matter. (Communicated by Louis Elsberg.)
Bousfield,	GEORGE TOM- [LINSON.	1998	2nd Aug.	1866	Carding-engines. (Communicated by Edward Adam Cutler and Charles Bliven.)
Bousfield,	George Tom- [Linson.	2190	25th Aug.	1866	Combing wool and other fibre. (Communicated by Cullen Whipple and Elisha Johnson.)
Bousfield,	GEORGE TOM- [LINSON.	2250	lst Sept.	1866	Machines for making eyelets. (Communicated by Thomas Garrick.)
Bousfield,	GEORGE TOM- [LINSON.	2389	11th Sept.	1866	Apparatus applicable to marine steam- boilers. (Communicated by Jean Baptiste Thierry, jun'.)
Bousfield,	GEORGE TOM- [LINSON.	2388	17th Sept.	1866	Certain new and useful improvements in steam jets. (Communicated by David Meeker Nichols.)
Bousfield,	GEORGE TOM- [LINSON.	2389	17th Sept.	1866	Improvements in the art of felting or sizing hat bodies, and machinery therefor. (Communicated by Philip Wheeler Somers.)
Bouspirld,	GEORGE TOM- [LINSON.	2593	8th Oct.	1866	Separating sulphur from soda waste. (Communicated by Panajota Wilhelm Hofmann, Ph.D.)
Bousfield,	George Tom- [Linson.	2594	8th Oct.	1866	Brick making machines. (Communicated by Antoine McNair.)
Bousfield,	GEORGE TOM- [LINSON.	2669	56th Oct.	1866	Manufacture of green and blue coloring matters. (Communicated by Alcide Poirrier and Charles Chappat, fils.)
Bousfield,	George Tom- [LINSON.	2759	25th Oct.	1866	Improvements in the manufacture of gases for the purpose of producing heat, and the application thereof to metallurgical operations. (Communicated by William Elmer, M.D.)
Bousfield,	GEORGE TOM- [LINSON.	2810	30th Oct.	1866	Improvements in treating sheet iron plates for the purpose of preparing the same for being coated with zinc, for producing the so-called "galvanized iron," and also for manufacturing such plates in imitation of Russia iron. (Communicated by Charles Henry Perkins.)
Bousfirld,	GEORGE TOM- [LINSON.	3452	31st Dec.	1866	Improvements in the method of effecting the cut-off in steam-engines, and also in the regulator for controlling the speed of steam-engines. (Communicated by George Herman Babcock and Stephen Wilcox, jun'.)
Boutellas-I	Desmoulins, [Felix.	189	20th Jan.	1866	Improved preparations of the plant known as the coca, to permit its incorporation with confectionery of all kinds, syrups and liqueurs, and its use for dyeing. (Patented by William Edward Gedge.)
Воитет, Тно	omas Charles -	489	15th Feb.	1866	A new method of constructing bridges of a single reach or span from one bank to the other, that is, without piles between the abutments.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Bouvier, Benôit	2351	13th Sept. 1866	Manufacture or ornamentation of cloth and pile fabrics. (Patented by William Clark.)
Bouvier, Geoffroy	2351	13th Sept. 1866	Manufacture or ornamentation of cloth and pile fabrics. (Patented by William Clark.)
BOUVIER, JEAN BAPTISTE, [otherwise Jules.	2351	13th Sept. 1866	Manufacture or ornamentation of cloth and pile fabrics. (Patented by William Clark.)
Bouvier, Pierre	2351	13th Sept. 1866	Manufacture or ornamentation of cloth and pile fabrics. (Patented by William Clark.)
Bovill, George Hinton -	1373	14th May 1866	Mode of applying sewage to land.
Bovill, George Hinton -	2214	28th Aug. 1866	Manufacture of rails for railways.
Bowater, Alfred	2819	31st Oct. 1866	An improved method of utilizing Bessemer and other steel and iron scrap.
Bowden, James	2082	14th Aug. 1866	An improved mode of fastening boiler tubes. (Patented by Alfred Vincent Newton.)
Bowdoin, Christine Temple	1504	29th May 1866	Telegraphic printing apparatus. (Communicated by Gaetano Bonelli.)
Bowen, Abraham	1653	20th June 1866	Sewing machines.
Bower, William	148	16th Jan. 1866	Improvements in the construction of steam- boilers, which improvements are also applicable to the construction of other vessels of a like character.
Bowers, Jacob	349	5th Feb. 1866	Coke ovens. (Patented by Charles Denton Abel.)
BOXER, EDWARD MOUNIER -	137	15th Jan. 1866	Cartridges for breech-loading fire-arms and ordnance.
Boxer, Edward Mounier -	2653	13th Oct. 1866	Cartridges for breech-loading fire-arms.
Boyd, James Edward	3107	26th Nov. 1866	Grass or lawn mowing machines.
Воур, Јони	2013	4th Aug. 1866	Winding apparatus.
Вочд, Јонн	2367	14th Sept. 1866	Winding apparatus.
BOYD, ROBERT ANDREW	737	10th March 1866	Cooling bacon-curing rooms or chambers.
BOYD, ROBERT H	1466	25th May 1866	An improved machine for the manufacture of augers, bits, drills, and like tools and articles. (Patented by John Thomson King.)
Boyd, Samuel	3234	8th Dec. 1366	Connecting or fastening the ends of iron and other metal bands surrounding bales of cotton and other like packages. (Patented by Henry Charles Lucy.)
Boyle, Thomas	1478	28th May 1866	Utilizing the explosive force of discharges in guns and fire-arms, and diminishing or preventing the recoil.
Boyman, Richard Boyman -	1497	29th May 1866	Improvements in propelling vessels by the reaction of water, and in the machinery for the purpose.
Boyman, Richard Boyman -	3262	12th Dec. 1866	Improvements in applying jets of steam, by action and reaction, to propel vessels and aërial conveyances, with other improvements in the latter, and in the machinery for both, parts of which are applicable for other hydro and aëro purposes.
Boys, Ernest Marie Du -	518	20th Feb. 1866	Apparatus for measuring and registering the flow of water or other liquids.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Bozek, Romuald	2244	31st Aug. 1866	Joints or connections for pipes. (Patented by Charles Denton Abel.)
BRABY, FREDERICK	2800	30th Oct. 1866	Improvements in machinery or apparatus for cleaning boots and shoes, also applicable to the cleaning of other articles.
Brace, Thomas	2441	22nd Sept. 1866	An improved self-acting feeding apparatus for cotton gins.
Bracewell, William	2884	7th Nov. 1866	Valves for engines worked by steam or other fluid.
Bracher, John	895	27th March 1866	Iron safes, strong rooms and doors.
Braconnier, Alfred	2587	8th Oct. 1866	An improved mode of treating stale bread and biscuits with a view to restoring their freshness. (Patented by John Henry Johnson.)
BRADBURN, WILLIAM	34 01	28th Dec. 1866	Improvements in treating excrementitious matters and other refuse matters, for the purpose of obtaining valuable products therefrom, and in apparatus to be employed for that purpose.
BRADBURY, GEORGE FRANCIS	2610	9th Oct. 1866	Sewing machines. (Communicated by Thomas Antoney Macaulay.)
Braddon, William	259	26th Jan. 1866	Apparatus for lowering boats, part of which apparatus is applicable to other uses.
Bradford, Thomas	63	9th Jan. 1866	Machines for washing, scouring and starching.
Braendlin, Francis Augustus	2243	30th Aug. 1866	Breech-loading fire-arms.
Braendlin, Francis Augustus	2652	13th Oct. 1866	Breech-loading fire-arms.
Braggins, Edward	827	20th March 1866	Process of and apparatus for distilling petroleum and other mineral oils. (Patented by William Edward Newton.)
Brainard, Amos Hale	457	13th Feb. 1866	Vices. (Patented by William Robert Lake.)
Brampton, Frederick	612	28th Feb. 1866	Files or holders for holding letters, invoices and music, and for other like purposes.
Brand, Nathan	1550	5th June* 1866	Mode of and machinery for making hoes, trowels and other similar instruments.
Brandon, Alexander Horace	374	7th Feb. 1866	Manufacture of axles for railway carriages. (Communicated by Alfred Motteau.)
Brandon, Alexander Horace	1039	12th April 1866	Certain new and useful improvements in springs which are particularly adapted to use as railroad car springs, but may be applied to other purposes. (Communicated by Alexander Watson.)
Brandon, Alexander Horace	2623	10th Oct. 1866	Certain new and useful improvements in electrical apparatus. (Communicated by George Lionel Leclanché.)
Brash, Peter	1278	4th May 1866	Improvements in the distillation of coal shale and other bituminous substances to obtain oily matters therefrom, also in the redistillation of products thereby obtained.
Brash, Peter	1885	19th July 1866	Treatment of certain residues in order to obtain fatty acids therefrom.
Brash, Peter	2380	17th Sept. 1866	Manufacture of oil from shale and other bituminous substances.

Name of Patentee.	Number of Patent.	Date.		Subject-matter of Patent.
Brasier, Edward	1859	llth May	1866	Machinery for scutching and preparing flax, hemp or other fibrous materials.
BRAUN, AUGUSTUS	1378	15th May	1866	Gun locks. (Patented by Henry Grafton.)
Brāutigam, Charles	1529	lst June	1866	Wheeled carriages.
Bray, Edwin	1197	27th April	1866	Apparatus for the prevention of steam-boiler explosions.
Bray, William	1992	2nd Aug.	1866	Machinery for cutting files and rasps.
Breitenstein, William	951	3rd April	1866	Power looms for weaving. (Patented by William Edward Newton.)
BREMME, GUSTAV ALBRECHT	1298	7th May	1866	Machinery for dressing fibres.
Brentnall, John Cresswell	2702	19th Oct.	1866	Machinery for spinning and doubling.
BRETHAUER, HENRY	3176	3rd Dec.	1866	Improved apparatus for discharging bilge water from vessels' holds.
Bréval, Laurent	3042	20th Nov.	1866	Improvements in drying tan and in the machinery or apparatus employed for that purpose. (Patented by Charles Denton Abel.)
Brewer, Edward Griffith -	1686	25th June	1866	A new or improved coupling for railway carriages, trucks and waggons. (Communicated by Alexander Robert Terry.)
BRICKNELL, AUGUSTUS LEA -	1286	5th May	1866	Apparatus applicable as a rotary engine, pump and water meter.
Bricoteaux, Louis Charle- [magne.	1309	8th May	1866	An improved combination of apparatus fitting within every sort of chimney and preventing any smoke being driven back into apartments. (Patented by William Edward Gedge.)
Bricoteaux, Louis Charle- [magne.	2889	7th Nov.	1866	An improved combination of apparatus fitting within every sort of chimney and preventing any smoke being driven back into apartments. (Patented by William Edward Gedge.)
BRICOTEAUX, LOUIS JULES -	1309	8th May	1866	An improved combination of apparatus fitting within every sort of chimney and preventing any smoke being driven back into apartments. (Patented by William Edward Gedge.)
BRICOTEAUX, LOUIS JULES -	2889	7th Nov.	1866	An improved combination of apparatus fitting within every sort of chimney and preventing any smoke being driven back into apartments. (Patented by William Edward Gedge.)
Bridges, Thomas	3197	5th Dec.	1866	Improvements in the furnaces of steam- boilers, which improvements may also be applied to other furnaces.
Brierley, LEONARD	2964	13th Nov.	1866	Metallic bedsteads, cots and couches.
BRIERLEY, RICHARD	1250	2nd May	1866	Carts, waggons, lorries or any such like vehicles.
Briges, Malbec de	2869	5th Nov.	1866	Obtaining photographic pictures.
Briggs, James	1112	20th April	1866	Machinery for spinning and doubling.
BRIGGS, THOMAS junior	782	16th March	1866	Machinery and apparatus employed in the manufacture of water-proof and other fabrics.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Brigham, Silas Otis	2517	29th Sept. 1866	An improved apparatus for fitting garments. (Patented by Henri Adrien Bonneville.)
BRIGHT, HENRY	549	22nd Feb. 1866	Electric clocks.
BRIGHT, JAMES PRATT	2343	12th Sept. 1866	An improvement or improvements in manufacturing, decorating and ornamenting articles of furniture.
BRINDLEY, JOHN	8057	21st Nov. 1866	A new or improved artificial incubator.
Brinjes, John Frederick -	756	13th March 1866	Machinery or apparatus for distilling bitu- minous shale and other bituminous sub- stances of a like nature,
BRINSMEAD, HENRY	3288	14th Dec. 1866	Construction of pianofortes.
BRIOU, HENRY EDWARD [FRANCIS DE.	394	8th Feb. 1866	Improved compositions for preserving metals from oxidation, corrosion and galvanic action, for protecting metals used in the construction of ships against the destructive effects of sea water, and preventing their fouling, for protecting wood from the attacks of animalculæ, and preserving wood from damp, rot and decay, for excluding damp from walls, and for use in submarine and other telegraphy.
Brisset, Alphonse	1085	11th April 1866	Apparatus for drawing off aërated liquids. (Patented by William Clark.)
BRITTAN, THOMAS	1050	13th April 1866	Telegraphic signalling apparatus.
Broadbent, John	676	6th March 1866	Machinery and apparatus for winding and reeling yarn.
Broadbent, John	3184	4th Dec. 1866	Manufacture of "weft forks" used in power looms for weaving cotton, worsted or silk, or any suitable material.
BROADBENT, THOMAS	1728	28th June 1866	Improved means of and apparatus for extinguishing fire in steam ships, mills, manufactories and other buildings.
Broadfoot, John	199	22nd Jan, 1866	Water-closets.
Brockbank, George Henry	2488	26th Sept. 1866	Manufacture of pianofortes.
Brocon, James	2197	25th Aug. 1866	An improved friction clutch for starting and stopping machinery. (Patented by Corey Me Farland.)
Bromley, George	866	23rd March 1866	Screw gill boxes or hackle frames.
Brönner, Julius	185	20th Jan. 1866	Gas burners. (Patented by William Bünger.)
Brönner, Julius	1866	17th July 1866	An improved gas hurner. (Patented by William Edward Gedge.)
Brönner, Julius	2679	17th Oct. 1866	Improved fixing of draught apparatuses and their respective supports, on all kinds of gas-burners, and improved gas-burners and draught apparatuses in connection with that.
Brook, Hiram	824	20th March 1866	Apparatus for scouring, washing, bleaching, dyeing and drying fibrous materials in the raw and manufactured state.
Brooke, Edward	2752	25th Oct. 1866	Improved signalling apparatus for use on railways.
BBOOKE, EDWARD, the younger	941	2nd April 1866	Construction and arrangement of apparatus and material for effecting the deodorizing of noxious gases arising from sewers and drains, and for the more effectual venti- lation of such sewers and drains.

Name of Patentee.	Number	Date.	Subject-matter of Patent.
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Brookes, William	220	23rd Jan. 1866	Mode of producing mechanical motion. (Communicated by Henry Smith.)
Brookes, William	1123	20th April 1866	Means or apparatus for combing wool and other fibres. (Communicated by Raphael Ferdinand Tavernier and Joseph François Amédée Tavernier.)
Brookes, William	2092	15th Aug. 1866	Apparatus for cutting, grinding and finishing marble and other similar materials. (Communicated by James W. Maloy.)
Brookes, William	3145	29th Nov. 1866	Construction and manufacture of railway wheels called "disc wheels," formed from one piece or mass of iron or steel. (Communicated by Jean Baptiste Helsön.)
BROOKES, WILLIAM	3399	27th Dec. 1866	Manufacture or production of needles.
BROOKES, WILLIAM COLBORNE	2228	29th Aug. 1866	Means or apparatus for balling wool and other fibres. (Communicated by Amédée Prouvost Jean Baptiste Lefebore and Henry Lefebore.)
Brooks, David	1226	lst May 1866	Insulators for telegraph wires. (Patented by George Davies.)
Brooks, Edgar	2196	25th Aug. 1866	Improvements in breech-loading fire-arms, and in cartridges for breech-loading fire-arms.
Brooks, Heman Porter -	2714	20th Oct. 1866	Machinery for compressing, rounding, or pointing wires or rods to form pins, needles or other articles of metal.
Brooks, William Forman -	2319	10th Sept. 1866	Manufacture of seamless metallic tubes. (Patented by Alfred Vincent Newton.)
Brooman, Clinton Edgcumbe	834	21st March 1866	Improvements in projectiles and in car- tridges. (Communicated by John Webster Cochran.)
Brooman, Clinton Edgcumbe	859	23rd March 1866	A new or improved process of transforming scraps or cuttings of Bessemer steel, and other scraps or cuttings of iron, puddled steel and cast steel, into ingots of cast steel. (Communicated by Emile Martin and Pierre Emile Martin.)
Brooman, Clinton Edgcumbe	998	7th April 1866	An improved fastening for gloves and other articles. (Communicated by Emil Bertin.)
Brooman, Clinton Edgcumbe	1078	17th April 1866	An improved varnish for preserving wood, and for protecting iron ships and other metal-work from oxydation and from fouling. (Communicated by Adolphe Guibert.)
Brooman, Clinton Edgcumbe	1079	17th April 1866	Improvements in crushing, separating, and washing ores and other substances, and in apparatus employed therein. (Communicated by Louis Bataille.)
Brooman, Clinton Edgcumbe	1265	4th May 1866	An improvement in combs. (Communicated by François Fauvelle Delebarre.)
BROOMAN, CLINTON EDGCUMBE	1283	5th May 1866	Machinery for combing wool and other fibres. (Communicated by Amedée Prouvost.)
Brooman, Clinton Edgcumbe	1284	5th May 1866	Drawing or propelling boats, barges, rafts and other similar structures, on canals, rivers and such like waters. (Communicated by Greenleaf Stackpole.)

Name of Patentoe.	Number of Patent.	Date.	Subject-matter of Patent.
Brooman, Clinton Edgcumbe	1688	25th June 186	Locks or fastenings. (Communicated by Chretien Goynaud and Jacques Eugene Dollier.)
Brooman, Clinton Edgcumbe	1689	25th June 180	An improvement in wood screws. (Communicated by Henry Titus.)
Brooman, Clinton Edgcumbe	1726	28th June 186	6 Obtaining alkaline permanganates. (Communicated by Cyprien Marie Tessié du Motay and Charles Raphael Mare- chal, jun'.)
BROOMAN, CLINTON EDGCUMBE	1984	25th July 186	A new or improved process or method of treating armour plates to render them inoxidizable. (Communicated by Mayeul Bernabé.)
BROOMAN, CLINTON EGDCUMBE	2203	27th Aug. 186	Improvements in or connected with carriage breaks. (Communicated by Jean Pierre Haffner and Louis Désiré Guillet.)
Brooman, Clinton Edgcumbe	2266	3rd Sept. 18	A new method of bleaching fibres and fabrics of vegetable origin. (Communicated by Cyprien Marié Tessie du Motay and Charles Raphael Marechal.)
Brooman, Clinton Edgcumbe	2304	7th Sept. 18	Improvements in breech-loading fire-arms, and in the manufacture of cartridges to be used therewith. (Communicated by Antoine Alphonse Chassepot.)
Brooman, Clinton Edgcumbe	2312	8th Sept. 18	A new or improved cup or apparatus for containing and supplying oil for lubricating purposes. (Communicated by Victor Lieuvain.)
BROOMAN, CLINTON EDGCUMBE	2461	25th Sept. 18	G6 Lace machinery. (Communicated by Désiré Sival and Léon Sival.)
Brooman, Clinton Edgcumbe	2536	3rd Oct. 18	The production and application of an imponderable fluid, together with the apparatus or means employed therein. (Communicated by Martin Ziegler.)
Brooman, Clinton Edgcumbe	2700	18th Oct. 18	Improved arrangements of apparatus for storing or holding petroleum and other inflammable liquids. (Communicated by Felix Bizard and Pierre Labarre.)
Brooman, Clinton Edgcumbe	2706	19th Oct. 18	Improved pins, nails or tacks, the application of the same to certain purposes, and an apparatus to be employed in inserting the same, when fixed to caps or capsules, into corks. (Communicated by Victor Palyart.)
Brooman, Clinton Edgcumbr	2746	24th Oct. 18	Machinery for combing wool and other fibres. (Communicated by Amédée Prouvost.)
Brooman, Clinton Edgcumbe	2755	25th Oct. 18	Apparatus for lighting and heating. (Communicated by Jean Baptiste Marie Amédée Bourreiff.)
Brooman, Clinton Edgcumbe	2866	5th Nov. 186	Improvements in puddling and in apparatus employed therein. (Communicated by Pierre Adolphe Dormoy.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent,
Brooman, Clinton Edgcumbe	2971	13th Nov. 1866	An improved method of and arrangement of engine for towing or hauling barges and other vessels, which arrangement of engine is also applicable for other tractive purposes. (Communicated by Urbain André Chauveau and Henri Marie Joseph Le Nepvou de Carfort.)
Brooman, Clinton Edgcumbe	3010	16th Nov. 1866	Spinning machinery. (Communicated by Guillaume Joseph Snakers.)
Brooman, Clinton Edgcumbe	3047	20th Nov. 1866	A new or improved process or method of coating or covering iron and steel with copper or copper alloys. (Communicated by Mayeul Bemabé.)
Brooman, Clinton Edgcumbe	3072	22nd Nov. 1866	An improved construction of iron for ironing. (Communicated by Clemente Augusto d'Assumpcao.)
Brooman, Clinton Edgcumbe	8195	5th Dec. 1866	Manufacture of colouring matters. (Communicated by Charles Lauth.)
Brooman, Clinton Edgcumbr	3248	10th Dec. 1866	Improvements in the manufacture of studs or nails for upholstery, harness and other purposes, and in the apparatus employed therein. (Communicated by Hippolyte Parpaite.)
BROOMAN, CLINTON EDGCUMBE	3256	11th Dec. 1866	Railway carriages and waggons. (Communicated by Samuel Maynard.)
BROOMAN, CLINTON EDGCUMBE	3257	11th Dec. 1866	Looms for weaving. (Communicated by John Bailey.)
BROOMAN, CLINTON EDGCUMBE	3273	13th Dec. 1866	Treatment of lead and argentiferous litharge. (Communicated by Frederic Cordurié.)
Brooman, Clinton Edgcumbe	8307	15th Dec. 1866	Preparation and application of certain fatty bodies. (Communicated by Mathias Paraf-Javal and Eugene Paraf-Javal.)
BROOMAN, RICHARD ARCHI- [BALD.	15	2nd Jan. 1866	An improved extensible apparatus for the passage of gases and fluids, especially adapted for gasaliers. (Communicated by Edmond Robin and Henri Robin.)
BROOMAN, RICHARD ARCHI- [BALD.	64	9th Jan. 1866	Apparatus for washing or scouring and wringing textile fabrics and threads. (Communicated by Jules Degrelle.)
BROOMAN, RICHARD ARCHI- [BALD.	83	10th Jan. 1866	Improvements in the manufacture and purification of lamp black, and in apparatus employed therein. (Communicated by Benoit Perra.)
BROOMAN, RICHARD ARCHI- [BALD.	84	10th Jan. 1866	Bleaching vegetable and animal fibres and tissues. (Communicated by Charles Raphael Maréchal and Cyprien Marie Tessié de Motay.)
BROOMAN, RICHARD ARCHI- [BALD.	85	10th Jan. 1866	An improved method of producing oxygen. (Communicated by Charles Raphael Maréchal and Cyprien Marie Tessié du Motay.)
BROOMAN, RICHARD ARCHI- [BALD.	119	13th Jan. 1866	An improvement in spring tops. (Communicated by Hippolyte Huriaux and Lucien Faille.)

Name of Patentee.	Number of Patent.	· Date.		Subject-matter of Patent.
BROOMAN, RICHARD ARCHI-	184	15th Jan. 18	366	Circular frames for the manufacture of looped fabrics. (Communicated by Emile Lecaur.)
BROOMAN, RICHARD ARCHI-	262	26th Jan. 18	366	Machinery for the manufacture of asphalted felt. (Communicated by Antoine d'Azambuja.)
Brooman, Richard Archi- [Bald.	278	27th Jan. 18	366	Differential screw apparatus. (Communicated by François Durand and Paul Baudet.)
Brooman, Richard Archi- [Bald.	611	28th Feb. 18	366	Improvements in casting metals and in moulds employed therein. (Communicated by François Antoine Marie Boué.)
Brothers, Orlando	1338	10th May 18	366	Governors or apparatus for regulating and controlling the pressure and flow of illumi- nating gas or other gaseous fluids.
Brotherton, John	1776	4th July 18	366	Machinery for making the fittings for gas, steam and water pipes.
Broughton, James	2506	28th Sept. 18	366	An improved washing-machine.
BROUGHTON, JOSEPH	2506	28th Sept. 18	866	An improved washing-machine.
Brown, Alzirus	1474	26th May 18	366	Horse rakes. (Patented by John Gustavus Rollins.)
Brown, Andrew	3421	29th Dec. 18	366	Arrangement and construction of dredges.
Brown, Andrew Betts -	1539	2nd June 18	66	Improvements in engines for pumping water, applicable to engines for feeding steamboilers.
Brown, Charles	2096	15th Aug. 18	366	A new or improved apparatus for consuming smoke from gas and other lamps.
Brown, Charles Williams-	556	23rd Feb. 18	366	Ships' binnacle lamps.
Brown, Frederick	2812	30th Oct. 18	366	Manufacture of brushes.
Brown, James	1303	7th May 18		Machinery or apparatus for actuating railway signals and points.
Brown, James Bryce	1424	19th May 18	366	Mowing-machines.
Brown, James Bryce	2274	4th Sept. 18	1	Mowing-machines.
Brown, John	1418	19th May 18	366	Machinery for cutting or slicing timber, more especially applicable for cutting laths for building purposes, tobacco or any fibrous substance.
Brown, John	2050	9th Aug. 18		Certain improvements in jacquard machines.
Brown, John Erskine	2896	7th Nov. 18	366	Improvements in finishing woven fabrics, and in the machinery to be employed therefor,
Brown, John Erskine	3415	29th Dec. 18	366	Improvements in the holding, distending, and otherwise treating or finishing woven and other web fabrics, and in the means or apparatus employed therefor.
Brown, John Harcourt -	272	27th Jan. 18	366	Manufacture of leather fabrics.
Brown, Julia Parris	2974	13th Nov. 18	366	Improvements in bedsteads, and in their application in apartments.
Brown, Luke	536	21st Feb. 18	366	Stop cocks.
Brown, Samuel	285	29th Jan. 18	366	An improved detachable or disengaging eye for launching boats from the sides of ships and for other purposes. (Patented by William Clark.)
Brown, Samuel	3228	7th Dec. 18	366	An improved detaching hook. (Patented by William Clark.)

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Name of Patentee.	Number of Patent.	Date.		Subject-matter of Patent.
BROWN, SAMUEL SHAW'	708	8th March 18	366	Gas burners.
Brown, Thomas	3409	28th Dec. 18	36 6	Cocks for stopping and regulating the flow of steam, water and other fluids.
Brown, William	452	13th Feb. 18	8 6 6	Apparatus for operating on straw applied to threshing machines or otherwise.
Brown, William Barring- [Ton.	1633	16th June 18	866	An improved anti-acid oil.
Browne, Benjamin	378	7th Feb. 18	366	Construction of needles employed more particularly in fancy needle-work on canvas. (Communicated by Gustave Mayer.)
Browne, Benjamin	1661	21st June 18	66 6	Construction of camp or folding bedsteads. (Communicated by Robert Clegg.)
Browne, Benjamin	3870	21st Dec. 18	666	Construction of camp or folding bedsteads. (Communicated by Robert Clegg.)
REOWNE, JOHN NICHOLLS -	2034	7th Aug. 18	66	Preserving wood. (Communicated by Louis Robbins.)
BROWNING, HENRY	2540	3rd Oct. 18	66	An improved composition to be substituted for ordinary paints.
Browning, Samuel John -	3165	1st Dec. 18	666	Improvements in the methods of applying and arranging apparatus for distilling sea water, and also in the mode or method of combining and using such apparatus for that and other purposes.
BRUEN, LEWIS BUDD	2718	20th Oct. 186	66	Sewing machinery. (Patented by George Haseltine.)
Bruff, Peter Schuyler -	12	2nd Jan. 186	66	Fastenings for the permanent way of railways.
BRUILLON, ALFRED JEAN BAP- [TISTE.	18	3rd Jan. 186	66	Apparatus for sowing grain or seed, and performing certain other operations connected therewith. (Patented by Henri Adrien Bonneville.)
Brumpit, Charles	333	3rd Feb. 186	66	Galvanic batteries for keeping up constant currents of electricity for railway train signals and electric telegraphic purposes.
Brunton, George	2883	6th Nov. 180	66	Improvements in pump valves, stop and let-off cocks or valves, especially adapted for hydraulic presses and high water pressure. (Patented by Charles James Robinson.)
BRUNTON, JOHN DICKINSON -	545	22nd Feb. 186	66	Improvements in the manufacture of peat fuel and in the machinery employed therein.
BRUNTON, JOHN DICKINSON	1784	5th July 186	66	Machinery or apparatus for sinking shafts or pits, and driving tunnels and galleries.
BRUSH, ALFRED CLARK	264	26th Jan. 186	66	An improved mode of treating fur, wool and hair. (Patented by Alfred Vincent Newton.)
BRUYSSEL, ERNEST VAN	2285	5th Sept. 18	66	Improvements in the construction of electric clocks, and in the means employed in working the same. (Patented by Alfred Vincent Newton.)
Bryson, Alexander	193	20th Jan. 18	1	Apparatus for catching fish.
Büchner, Ernst	1468	25th May 186	-	Manufacture of gas.
Buckingham, James	871	24th March 18	366	The application and use of a certain material to be employed in admixture with india-rubber, oils, resins or bituminous matters, which combinations may be applied to various useful purposes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Buckley, John	3102	26th Nov. 1866	Certain improvements in apparatus or mechanism for preparing and spinning cotton or other fibrous substances.
Buckley, Thomas Townsend	2942	10th Nov. 1866	Machinery for cutting and heading nails. (Patented by John Garrett Tongue.)
BUCKLEY, WILLIAM	22	3rd Jan. 1866	Signalling apparatus for colliery and other purposes.
Buckley, William	1700	26th June 1866	An improvement in the pistons of steam- engines, which improvement is also appli- cable to air pump buckets.
Buckton, Richard	2212	28th Aug. 1866	Looms for weaving.
Buerk, Jacob Edward	2646	12th Oct. 1866	An improved detecting apparatus for registering the time of watchmen, mechanics and other employés.
BOHRER, JACOB	958	4th April 1866	Effecting the combustion of fuel. (Patented by Francis Wise.)
Bührer, Jaköb	1365	12th May 1866	Improvements in the means of effecting the combustion of fuel, and in apparatus employed therein. (Patented by Astley Paston Price.)
Bührer, Jaköb	1611	13th June 1866	Improvements in the apparatus for and in the method of effecting the combustion of fuel. (Patented by Astley Paston Price.)
Buisson, François César -	1132	21st April 1866	Treating and applying a certain vegetable plant for the purposes of the tobacco plant.
Buisson, François César -	8238	8th Dec. 1866	A novel buoy or apparatus for storing valuable property on shipboard and preserving the same in case of shipwreck.
Bułcock, John	318	lst Feb. 1866	Looms for weaving.
Bulcock, John, the younger -	318	lst Feb. 1866	Looms for weaving.
Bulley, Thomas	574	24th Feb. 1866	Apparatus for cleaning the bottoms of iron, steel and other navigable vessels, when affoat and in motion, or lying in a stream.
Bullough, Adam	928	31st March 1866	Shuttles.
Bullough, John	1	lst Jan. 1866	Looms for weaving.
Bullough, John	2292	6th Sept. 1866	Looms for weaving.
Bullough, John	2620	10th Oct. 1866	Looms for weaving.
Bullough, Thomas	1967	31st July 1866	Shuttles used for weaving.
Bullough, William	1086	18th April 1866	Machinery for warping, dressing, sizing and beaming yarn.
Bünger, Frederic Ludovi- [cus Henri William.	163	17th Jan. 1866	Apparatus for discharging the water result- ing from condensed steam from apparatus where steam is employed.
Bünger, Frederick Ludovi- [cus Henri William.	1855	16th July 1866	Apparatus for discharging the water result- ing from condensed steam from apparatus where steam is employed.
Bünger, William	185	20th Jan. 1866	Gas-burners. (Communicated by Julius Brönner.)
Bönger, William	1414	18th May 1866	Machines for cutting and harvesting grain and grass crops. (Communicated by Morite Poll and William Angele.)
BUNNETT, EDWIN WILLIAM -	767	14th March 1866	Revolving shutters or blinds.
BUNNING, THEOPHILUS WOOD	2499	27th Sept. 1866	Drifting and rivetting machines.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Bunting, John	1742	30th June 1866	Manufacturing of cutlery handles and machinery employed therein.
Burgess, Charles Thomas -	2314	8th Sept. 1866	Reaping-machines.
Burgess, John	2576	6th Oct. 1866	Improvements in crochet needles and in the handles of crochet needles.
Burgess, William	131	15th Jan. 1866	Apparatus to be employed in treating and curing the tea leaf.
Burgess, William	1887	20th July 1866	Apparatus for washing, wringing and mangling.
Burgum, John	2494	27th Sept. 1866	Puddling and heating furnaces and other furnaces used in the manufacture of iron and steel.
Bürk, Johannes	164	17th Jan. 1866	An improved construction of watch or time-keeper for watchmen. (Patented by Henry Abenheim, Emil Abenheim and Leopold Abenheim.)
Burke, John	1396	16th May 1866	Breech-loading fire-arms. (Patented by William Edward Newton.)
Burleigh, Charles	8065	22nd Nov. 1866	Machinery for drilling rocks. (Patented by George Haseltine.)
Burles, Eugène	1155	24th April 1866	A new method of manufacturing woven fabrics.
BUBLISON, ROBERT	1849	14th July 1866	Means or apparatus for effecting the "fold- ing" and "papering" of woven fabrics.
BURMEISTER, LEOPOLD	2805	7th Sept. 1866	Construction of roller skates. (Patented by William Frederic Benhard Klein.)
BURNARD, GEORGE	1198	28th April 1866	An improved mode of and apparatus for preserving milk and cream, more especially designed for keeping milk fresh during transport.
Burney, Charles Mc	1649	19th June 1866	An improved process of utilizing waste vulcanized india-rubber and manufacturing hard rubber therefrom. (Patented by George Tomlinson Bousfield.)
Burns, Robert	368	7th Feb. 1866	Certain improvements in reaping and mow- ing machines.
Burr, Arthur Richard -	822	20th March 1866	Improvements in the manufacture of gun and pistol barrels, and in machinery to be employed in the said manufacture.
Burr, Asher	719	9th March 1866	Pumps. (Patented by Edward Thomas Hughes.)
BURRIDGE, WILLIAM HODGE	3361	20th Dec. 1866	An improved machine for digging potatoes, also applicable to digging for other purposes. (Patented by William Robert Lake.)
Burroughes, William Henr	9294	15th Dec. 1866	Marking-boards for billiards, pools, baga- telle and other such games.
Burrows, Joshua	1534	1st June 1866	Locomotive engines for common roads.
Burrows, William -	1534	lst June 1866	Locomotive engines for common roads.
BURTON, JAMES HENRY -	422	10th Feb. 1866	Construction of breech-loading fire-arms.
BURTON, JAMES HENRY -	850	22nd March 1866	Construction of breech-loading fire-arms.
Burton, John Watson	1160	25th April 1866	Improved means and apparatus for the treatment of animal fibrous substances and fabrics of mixed vegetable and animal substances, and of utilizing the waste products therefrom.
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Name of Patentee.	Number of Patent.	Date.		Subject-matter of Patent.
Bussell, William Joseph -	389	8th Feb.	1866	An improved substitute for emery to be used for cutting, grinding and polishing metal, marble, glass, precious stones and other hard substances.
BUTCHART, JAMES RITCHIE -	205	22nd Jan.	1866	Improvements in packing bottles and in the construction of hampers to be used therefor.
BUTCHER, HENRY CHARLES -	1166	25th April	1866	An apparatus to be used for piercing and holding cigars, and as a tobacco stopper, pencil case, whistle, seal, tooth-pick or watch key.
BUTLER, JAMES WILLIAM -	1148	23rd April	1866	Aërostatic apparatus.
Butler, Walter	3164	1st Dec.	1866	Connections between railway engines and carriages.
Buxton, Samuel	3332	19th Dec.	1866	An improved stench trap.

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CADDICK, DAVID	2259	3rd Sept.	1866	Improvements in the construction and working of furnaces for puddling, balling, heating and melting metals, and for economising the heat of such furnaces.
CADMAN, JOHN RICHARD -	2959	12th Nov.	1866	Improved means of forming joints between sashes, doors, drawers and other struc- tures, and the frames in which they move or are fitted.
CAESARIS, CLEMENTE DE -	550	22nd Feb.	1866	Preparing hides and skins for tanning.
CAESARIS, CLEMENTE DE -	1087	18th April	1866	Projectiles.
CAESARIS, CLEMENTE DE -	1271	4th May	1866	Preparing hides and skins for tanning.
Cailleaux, François	2142	21st Aug.	1866	An improved portable mill, parts of which are applicable to mill stones generally. (Patented by William Edward Gedge.)
Caire, Marius Adrien	1531	lst June	1866	Certain improvements in or connected with triggers for small arms. (Communicated by William Rudolf.)
CAIRNS, ALEXANDER	2360	14th Sept.	1866	Construction of liquid compasses.
CAITHNESS, THE RIGHT HON. [JAMES EARL OF.]	1511	30th May	1866	A new or improved method of cleaning boiler tubes.
Cajar, Emil	1876	18th July	1866	Sewing and button-hole machines. (Patented by Frederick Tolhausen.)
CALISHER, HENRY	1982	25th July	1866	Certain improvements in fire-arms.
Calkins, Thomas Luther -	2509	28th Sept.	1866	Railway switches. (Patented by John Henry Johnson.)
Calnon, Denis	2234	30th Aug.	1866	An improved crank for single or double purchase crabs or winches.
Calverley, Joseph	8222	6th Dec.	1866	Improvements in machinery for printing and cutting into sheets rolls of paper, and for collecting sheets so cut, also in the manufacture of stereotype printing surfaces.

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Name of Patentee.	(mber of tent.	Date.		Subject-matter of Patent.
Calvert, Francis Alton	-	869 2	4th March	1866	Machinery and apparatus for cleaning and preparing fibrous substances, and fo opening twisted yarns and woven fabrics
Calvert, Francis Alton	- 2	848	3rd Nov.	1866	Improvements in heating, applicable to steam-boilers' furnaces and other heating apparatus.
CALVERT, FRANCIS ALTON	- 3	387 2	4th Dec.	1866	Machinery for carding and cleaning fibrousubstances.
Calvert, John	- 2	452 2	4th Sept.	1866	Treatment and manufacture of iron and steel.
CALVERT, WILLIAM -	- 2	2751 2	5th Oct.	1866	Certain improvements in wearing-apparel known as the shirt or shirt front and the trousers.
Cambridge, Frederick	- 1	604 1	3th June	1866	Improvements in waggons or carts for carry ing hay or other agricultural produce, is order to facilitate the stacking of such produce.
Cambridge, Samuel Mc	1	651	3rd March	1866	Operating railway carriage brakes. (Patented by William Edward Newton.)
CAMBRIDGE, WILLIAM (BOI		268	3rd Sept.	1866	Clod-crushers and press wheel rollers.
CAMERON, ADAM SCOTT	- '	853 2	2nd Marcl	1866	Steam pumps. (Patented by William Clark.)
Cameron, John	- 2	3101 1	5th Aug.	1866	Manufacture of iron and steel.
Cameron, John Roberts	ON - 2	824 3	llst Oct.	1866	An improved vacuum air-engine. (Patented by William Edward Newton.)
CAMERON, PETER	- 1	.030 1	lth April	1866	Apparatus for producing loom-sewed fabrica
Caminade, Jean Pierre	_ 1	009	9th April	1866	Improvements in treating lucern root for paper making and weaving purposes, a well as in abstracting soda, salts and coloring matters therefrom. (Patented by Baldwin Fulford Weather don.)
Campbell, Andrew Dwi	GHT 2	1068	1th Aug.	1866	Certain improvements in stamps for producing impressions, which are also applied able to cylinder printing. (Communicated by Jabez Elverson.)
CAMPBELL, ARCHIBALD CA	MP- BLL.	682	6th Marci	1866	Improvements in superheating steam an in apparatus connected therewith.
CAMPBELL, DANIEL -	- 2	495 2	7th Sept.	1866	Sheathing of iron ships.
CAMPBELL, FREDERICK -	-		5th Jan.	1866	Apparatus to be employed in treating an curing the tea leaf.
Campbell, George -	- 1	1997	2nd Aug.	1866	Apparatus for raising aëriform and other fluids. (Communicated by Jeremiah William Foard.)
CAMPBELL, JOHN	-	808	l9th Marc	h 1866	Machinery for preparing, spinning an twisting flax, cotton, wool and other fibrous substances.
Campbell, Thomas -	- 2	2005	3rd Aug.	1866	Machinery or apparatus for staining of coating the surfaces of paper with cold or other material.
Campion, William -	- 8	3305	l5th Dec.	1866	Improvements in machinery or apparatus for linking, joining, turning off and clearin looped or knitted fabrics, applicable als to stitching machines.
Candler, Eugene	-	315	lst Feb.	1866	Vessels and apparatus for containing an drawing off wine and other liquids.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Canham, Richard	1479	28th May 1866	Machinery or apparatus employed when making moulds for casting metals.
Canouil, Germain	1896	21st July 1866	Amorces or primings for fire-arms, toy-arms or detonating toys.
CANOUIL, GERMAIN	1897	21st July 1866	Fire-arms, toy-arms or detonating toys.
CARBINES, WILLIAM HENRY -	1156	24th April 1866	Manufacture of gas.
Card, Joseph William -	708	8th March 1866	Steam-engines.
CARFORT, HENRI MARIE [JOSEPH LE NEPVOU DE.	2971	13th Nov. 1866	An improved method of and arrangement of engine for towing or hauling barges and other vessels, which arrangement of engine is also applicable for other tractive purposes. (Patented by Clinton Edgcumbe Brooman.)
Carle, John Frederik [Christian	918	29th March 1866	Cramps for the use of joiners and others.
CARLIER, CHARLES FREDERIC	947	3rd April 1866	Improvements in galvanic batteries and in the modes of applying the same to electro motive-power and other engines.
Carlier, François	2553	4th Oct. 1866	Apparatus for extinguishing fires. (Patented by Edward Casper.)
Caro, Heinrich	1956	28th July 1866	Preparation of bodies in which nitrogen is substituted for hydrogen.
Caro, Heinrich	2153	22nd Aug. 1866	Preparation of colouring matters.
Carpenter, James	637	2nd March 1866	Improvements in keys for watches and clocks, parts of which improvements are applicable to the keys of ordinary locks.
CARE, WILLIAM	8897 ·	26th Dec. 1866	Improvements in or applicable to machines for sizing yarns or threads preparatory to weaving, part of which improvements are applicable to other purposes.
CARRIER, HENRY	2221	28th Aug. 1866	Improvements in the manufacture or pro- duction of looped fabrics made on warp lace machines, and in the machinery or apparatus employed therein.
Carson, James	2086	15th Aug. 1866	Presses for printing the date or other par- ticulars on railway and other tickets.
Carte, Richard	3208	5th Dec. 1866	Improvements in the musical instrument designated the flute.
Carter, George	2157	22nd Aug. 1866	Propelling ships and other navigable vessels.
CARTER, HENRY	2417	20th Sept. 1866	Breech-loading fire-arms.
Carter, James	1616	14th June 1866	Improvements in opening, closing and se- curing windows, doors and shutters, and in the machinery or apparatus employed therefor.
Carton, Jean	351	5th Feb. 1866	A machine for cutting, stamping and em- bossing paper, cardboard, leather, india- rubber and woven fabrics in general. (Patented by Amédée Mahieux.)
Casper, Edward	2553	4th Oct. 1866	Apparatus for extinguishing fires. (Communicated by François Carlier.)
Cassap, William	2919	9th Nov. 1866	Means for expediting the putting out of ships' boats.
Casse, Adolphe	1428	21st May 1866	Manufacturing textile fahrics.
CASTERA PIERRE ARISTIDE -	1875	18th July 1866	A new or improved mode of actuating or working the points or crossings of rail- ways, so as to dispense with pointsmen.
Castree, John Alfred -	250	25th Jan. 1866	Looms for weaving.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Cathels, Edmund Small -	3258	11th Dec. 1866	Apparatus for conveying and regulating the supply of gas.
Catlow, Christopher -	2308	8th Sept. 1866	Looms for weaving.
CAULFIELD, WILLIAM BERE -	632	1st March 1866	Chains and apparatus used for submarine purposes.
Caulkins, Julius Frank -	2 9 38	10th Nov. 1866	An improvement in the construction of ships' anchors.
Caumon, Cyrille Jean (known [as John Absterdam).	554	23rd Feb. 1866	Manufacturing iron and steel and the alloy- age of metals, together with preparing ores for the same.
Cauzique, Marie Anne Vé- [ronique.	659	5th March 1866	Mode of converting the fibrous residues of certain plants into filaments suitable for the manufacture of textile fibrics, paper pulps and other products. (Patented by Marc Antoine François Mennons.)
Cavanagh, James	2532	3rd Oct. 1866	An improvement in water-closets, cisterns and soil traps.
CAVELL, JOHN SCOTT	2897	7th Nov. 1866	Construction of automaton figures or toys.
CETTI, CHARLES	2281	50th Sept. 1866	Construction of the ceilings of buildings.
CHADBURN, CHARLES HENRY	2412	20th Sept. 1866	Moveable door screens.
Chadwick, Daniel, jun'.	1298	7th May 1866	Machinery for dressing fibres.
CHALK, WILLIAM HENRY -	2856	3rd Nov. 1866	Iron safes and strong rooms.
CHALLINOR, THOMAS	2429	21st Sept. 1866	Machinery or apparatus for cleaning and polishing boots and shoes, harness and other manufactured leather goods.
Chalmers, James	2524	1st Oct. 1866	Bolts and washers.
Chaloner, Thomas	1643	19th June 1866	Construction of tools for graining and put- ting in the "bates" or pores representing different timbers.
Chaloner, Thomas	8235	8th Dec. 1866	Construction of tools for graining and put- ting in the "bates" or pores representing different timbers.
CHAMBERLAIN, HUMPHREY -	3419	29th Dec. 1866	Improvements in the manufacture of coke and charcoal, and in the overs employed therein.
CHAMBERLAIN, MATTHEW -	2861	3rd Nov. 1866	Manufacture of brushes and brush surfaces composed of india-rubber, gutta percha, parksine, leather or other similar elastic or flexible material.
Chambers, Aaron	1507	30th May 1866	Machinery for cutting files. (Patented by George Tomlinson Bousfield.)
CHAMBERS, EDWARD	231	24th Jan. 1866	Cases or apparatus for drying moulds.
Chambers, James	809	19th March 1866	Machinery or apparatus for laying veneers on to mouldings and other surfaces.
Chambers, William	3040	20th Nov. 1866	Machinery for stiffening and finishing tex- tile fabrics.
CHANDLER, HENRY	697	7th March 1866	Screw keys or spanners.
Chandler, James	2457	25th Sept. 1866	Apparatus for drawing and preventing waste of water from service pipes or cisterns.
Chaplin, Alexander	284	29th Jan. 1866	Locomotive engines designed for ascending steep inclines.
Chapman, Charles	1400	17th May 1866	Improvements in the rig of ships, and the setting, reefing and taking in of their sails from the deck.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Chapman, Charles	2692	18th Oct. 1866	Improvements in the construction of ships for war purposes, applicable in part also to the construction of forts.
CHAPMAN, HENRY	2364	14th Sept. 1866	Tools or machines for cutting, drilling, slot- ting, shot drilling, shaping and planing metals and other substances.
Chapman, John Cole	2566	5th Oct. 1866	Improvements in steam-engines, part of which invention is also applicable to fixing excentrics, cams or pulleys on to the shafts of other machinery.
Chapman, Thomas Jackson -	1363	12th May 1866	Construction of water-closets.
Chapman, William	8348	20th Dec. 1866	Means or apparatus employed in "beading" the "uppers" of boots and shoes and other articles.
CHAPPAT, CHARLES	1912	23rd July 1866	Improvements in the manufacture of certain alkaloids derived from aniline and its homologues, and in their transformation into coloring matters suitable for dyeing and printing. (Patented by George Tomlinson Bousfield.)
Chappat, Charles, fils -	2669	16th Oct. 1866	Manufacture of green and blue coloring matters. (Patented by George Tomlinson Bousfield.)
CHAPPLE, ARTHUR FRANK -	2309	8th Sept. 1866	Ink supplying penholders.
CHARLTON, HENRY	424	10th Feb. 1866	Stretching woven fabrics during the pro- cesses of stiffening and sizing them.
CHARLTON, JOHN	424	10th Feb. 1866	Stretching woven fabrics during the pro- cesses of stiffening and sizing them.
CHARNOZ, JULES CLAUDE [LOUIS.	1767	3rd July 1866	Apparatus for obtaining motive-power by means of steam. (Patented by William Adolph.)
CHARON, PIERRE LOUIS	108	12th Jan. 1866	Improved apparatus for cooking potatoes.
Chase, Lewson Everand -	1231	lst May 1866	An improvement in the manufacture of confectionery. (Patented by Oliver Rice Chase.)
CHASE, OLIVER RICE	1281	1st May 1866	An improvement in the manufacture of confectionery. (Communicated by Lewson Everard Chase.)
CHASSEPOT, ANTOINE AL- [PHONSE.	2304	7th Sept. 1866	Improvements in breech-loading fire-arms, and in the manufacture of cartridges to be used therewith. (Patented by Clinton Edgcumbe Brooman.)
CHATER, DANIEL SUTCLIFFE -	3188	4th Dec. 1866	Chimney tops for the prevention of smoky chimneys.
Chatwin, Thomas	2840	2nd Nov. 1866	Screw stocks and tube cutters.
Chatwood, Samuel	843	21st March 1866	Improvements in indicating and recording the distance run and direction of a ship or vessel, and in apparatus employed therein.
CHATWOOD, SAMUEL	1047	13th April 1866	Engines for obtaining motive-power.
CHATWOOD, SAMUEL	1292	5th May 1866	Cupola and other furnaces.
CHATWOOD, SAMUEL	1986	lst Aug. 1866	Improvements in hammers and in mechanism used therewith.
CHATWOOD, SAMUEL	3265	12th Dec. 1866	Construction of safes and key boxes to be used by bankers and others.
CHATWOOD, SAMUEL	3297	15th Dec. 1866	Improvements in hammers and in mechanism used therewith.

Name of Patentee.	Number of Patent.	Date.	 	Subject-matter of Patent.
Chaupourier, Jules Alpred Chauveau, Urbain André -	2501 2971	27th Sept. 18 13th Nov. 18		A new or improved self-feeding cotton gin. An improved method of and arrangement of engine for towing or hauling barges and other vessels, which arrangement of engine is also applicable for other tractive purposes. (Patented by Clinton Edgeumbe Brooman
Chauvin, François Joseph -	960	4th April 18	66	Treatment of sugar. (Patented by John Henry Johnson.)
CHAVERNOT, MARIN	748	12th March 18	366	Funnels. (Patented by Henri Adrien Bonneville.)
Cheetham, William	1199	28th April 18	66	Certain improvements in looms for weaving (Patented by John Lacey Davies.)
CHENILLE, AUGUSTE	8844	20th Dec. 18	66	Improved locomotive machinery or apparatus working without the aid of steam. (Patented by William Edward Gedge.)
Chéron, Julien Appolli- [NAIRE.	2981	10th Nov. 18	66	An improved apparatus to excavate, deepen, scour and remove the mud, slime, sand, earth, shoal, gravel, stones, shingle or such like bodies out of harbours, havens, docks, creeks, guts, bars, channels, water-courses, sluices, basins, lakes, ponds, marshes and similar places. (Patented by Henri Adrien Bonneville.)
CHERRY, RICHARD	148	16th Jan. 18	66	Improvements in the construction of steam- boilers, which improvements are also ap- plicable to the construction of other vessels of a like character.
CHESHIRE, COLEN HEWER -	2359	14th Sept. 18	66	An improved metal spring box or case for fusees, cigars and other purposes.
CHESNEY, WILLIAM	1787	6th July 18	66	Improvements in the manufacture of water and steam cocks or stop valves, applicable also for other like purposes.
Chesters, John	990	6th April 18	66	Construction of furnaces for the prevention of smoke.
CHETWYND, GEORGE	86	10th Jan. 186	66	Treatment of copper and nickel ores. (Communicated by Viscount Charles de Secqueville.)
CHEVALIER, LAURENT	8056	21st Nov. 18	66	Steam-boilers. (Patented by William Clark.)
Cheverton, James	1380	15th May 18	66	An improved method of obtaining surfaces for printing from stereotyping and electrotyping.
Снеж, Јони	942	2nd April 18	66	Looms for weaving.
CHEW, WILLIAM	942	2nd April 18	66	Looms for weaving.
CHICKEN, WILLIAM	2112	17th Aug. 18	66	Certain new and useful improvements in sewing-machines. (Patented by Amos Lawrence Wood.)
CHILDS, AUGUST BRYANT -	275	27th Jan. 18	66	Machinery for crushing quartz, ores and other substances. (Communicated by Abraham Karnes.)
CHILDS, AUGUSTUS BRYANT -	52 7	20th Feb. 186	66	An improved automatic apparatus for roasting coffee and other substances. (Communicated by Abner Baker.)
CHILDS, AUGUSTUS BRYANT -	2233	30th Aug. 18	66	Lifting jacks. (Patented by Samuel Bruckshaw Simon.)
CHILLCOTT, ISAAC ELDON -	1998	2nd Aug. 186	66	An improvement in the construction of safes, strong rooms and other similar depositories.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CHOUTEAU, PETER MENARD -	1495	29th May 1866	An improved composition for removing in- crustations and preventing the formation of the same in steam-boilers. (Patented by George Haseltine.)
Chubb, John	685	6th March 1866	Iron safes and strong rooms.
Снивв, Јони	2856	3rd Nov. 1866	Iron safes and strong rooms.
CHUBB, THOMAS JONAS	3203	5th Dec. 1966	An improved process and furnace or apparatus for the manufacture of steel, or metal having some of the properties of steel.
CHUBB, THOMAS JONAS	8205	5th Dec. 1866	Means of and apparatus for separating sub- stances of different specific gravities.
Church, Charles Henry -	1275	4th May 1866	Improvements in apparatus for lacing boots and shoes, gaiters and other articles of dress, and in the mode of attaching the same. (Patented by John Henry Johnson.)
CHURCHILL, CHARLES	2899	7th Nov. 1866	An improved chuck for holding drills and other tools. (Communicated by Albert Beach.)
CHURCHMAN, HENRY	2800	30th Oct. 1866	Improvements in machinery or apparatus for cleaning boots and shoes, also applicable to the cleaning of other articles.
CLAIRMONTE, ADOLPHUS JULIAN	2285	30th Aug. 1866	The elastic tubular india-rubber air chambered panuels.
CLANCHY, TIMOTHY JOSEPH -	53	8th Jan. 1866	An improvement in collars for the neck.
Clapham, Thomas Dunnill	2865	5th Nov. 1866	Improved means or apparatus for producing figured woollen fabrics or other fabrics capable of being figured.
CLAPP, WILLIAM HENRY -	2879	6th Nov. 1866	Carriage brakes.
CLAPPERTON, WILLIAM	2982	14th Nov. 1866	Multiple drilling machines.
CLARK, ALEXANDER	877	7th Feb. 1866	Machinery or apparatus for mortising or cutting holes or mortises in wood.
CLARK, ALEXANDER	1796	7th July 1866	Blinds and shutters for screening and closing windows and other openings.
CLARK, DANIEL KINNEAR, C.E.	1728	28th June 1866	Locomotive traction engines.
CLARK, GEORGE	873	7th Feb. 1866	Improvements in the construction, adapta- tion and application of machinery and apparatus for the manufacture of mats and envelopes of fibrous material, to cover and protect bottles and other fragile articles, and in the manufacture of such mats and envelopes.
CLARK, JAMES	2116	17th Aug. 1866	Rails for railways
CLARK, JAMES	2431	21st Sept. 1866	Wire cards and combs or heckles used in the preparation of cotton, wool and other fibrous materials.
Clark, John	645	3rd March 1866	Railway brakes.
CLARK, JOHN	2984	14th Nov. 1866	Railway breaks.
CLARK, JOSIAH LATIMER -	3038	19th Nov. 1866	Electric telegraphs.
CLARK, RICHARD	177	19th Jan. 1866	Steam-engine boilers.
CLARK, RICHARD	364	6th Feb. 1866	Construction and lighting of railway carriages.
Clark, Richard	619	28th Feb. 1866	Improvements in signal, street and other lamps, and in gas-burners.
CLARK, STEWART	1808	10th July 1866	Arranging and working steam-engine valves. (Communicated by John Morris Phillips and Joseph Hewes.)

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· Name of Pateutee.		Number of Patent.	Date.	Subject-matter of Patent.
Clark, William	-	35	4th Jan. 1866	Preparing and treating wood and wood pulp for the manufacture of paper. (Communicated by Jean Baptiste Neyret, Zéphirin Gaspard Alexandre Nathan Petrone Orioli and Amable Alfred Fredet.)
CLARK, WILLIAM	-	47	6th Jan. 1866	Bridges. (Communicated by Rembrandt Lockwood.)
CLARK, WILLIAM -	-	181	19th Jan. 1866	Means and apparatus for obtaining and applying motive-power. (Communicated by Alexandre Bobrown-icki.)
CLARK, WILLIAM -	· -	223	23rd Jan. 1866	Machinery for the manufacture of paper bags. (Communicated by Benjamin Spencer Binney.)
Clark, William -	. <u>-</u>	242	24th Jan. 1866	Improvements in the manufacture of artificial flowers, feathers and other articles, and in apparatus used for the same. (Communicated by Bernard Viellefon.)
CLARK, WILLIAM -	-	243	24th Jan. 1866	Typographic printing apparatus. (Communicated by Alexandre Yves Gaveaux.)
CLARK, WILLIAM	•	285	29th Jan. 1866	An improved detachable or disengaging eye for launching boats from the sides of ships and for other purposes. (Communicated by Samuel Brown and Leon Level.)
CLARK, WILLIAM	-	592	26th Feb. 1866	Pin cartridges. (Communicated by Jules Félix Gévelot.)
CLARK, WILLIAM	-	638	2nd March 1866	Steam vessels. (Communicated by David Fernando Masnata.)
CLARK, WILLIAM -	-	653	3rd March 1866	Rose engines. (Communicated by Anton Schwitter and Lewis Schwitter.)
CLARK, WILLIAM -	•	765	14th March 1866	Apparatus for ironing and finishing linen and other fabrics. (Communicated by James Lyall and William Lyall.)
CLARK, WILLIAM -	-	828	20th March 1866	A new or improved compound or preparation to be used in the treatment of jute and China grass. (Communicated by George Hanot.)
GLARK, WILLIAM -	-	858	22nd March 1866	Steam pumps. (Communicated by Adam Scott Cameron.)
CLARK, WILLIAM	•	1011	9th April 1866	Fastenings for trunks, boxes, bags, valises and other like articles. (Communicated by William Shankland Paddock.)
Clark, William -	-	1024	10th April 1866	Crinolines. (Communicated by Catherine Vergeat- Meunier.)
CLARK, WILLIAM -	• •	1035	11th April 1866	Apparatus for drawing off aerated liquids. (Communicated by Pierre Alcide Olivier and Alphonse Brisset.)
Clark, William -	• -	1042	12th April 1866	Apparatus for spooling and copping threads or yarns. (Communicated by David Grandy, junior, and Emile Queulain.)
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Name of Patentee.		Number of Patent.	Date.	Subject-matter of Patent.
Clark, William -	. <u>.</u>	1048	13th April 1866	Mills for crushing, grinding and other purposes. (Communicated by Jean Baptiste Bernard, Charles Laurent, Emile Peugeot and Jules Peugeot.)
CLARK, WILLIAM -	-	1164	25th April 1866	Machinery for making twist drills. (Communicated by Andrew Reynolds Arnold.)
CLARK, WILLIAM -		1801	7th May 1866	Lighting apparatus applicable to lighting cigars and pipes. (Communicated by François Dedeyn.)
CLARK, WILLIAM -		1960	11th May 1866	Shoes and other appliances for the protection of the feet and ankles of horses and other animals. (Communicated by Albert Sayles Wilkinson.)
CLARK, WILLIAM -		1894	16th May 1866	Lamps for burning mineral and other oils. (Communicated by Etienne Jammes.)
CLARK, WILLIAM -		1895	16th May 1866	Furnaces and other fire-places. (Communicated by Frédéric Marie Piret and Eugène Michel.)
CLARK, WILLIAM -		1483	28th May 1866	Scoops and elevators for excavating. (Communicated by Augustus Theodore Morris.)
CLARK, WILLIAM -		1518	31st May 1866	Apparatus for recording the distance travelled by vehicles and the time occupied therein. (Communicated by Leocadio Ramon-y-Garcia.)
CLARK, WILLIAM -		1786	29th June 1866	Embroidering machinery. (Communicated by Ernest Auguste Bourry.)
CLARK, WILLIAM -		1798	7th July 1866	Sewing-machines. (Communicated by Elias Howe, junr.)
CLARK, WILLIAM -		1832	12th July 1866	Grease cups. (Communicated by Gebhard Hagenmeyer.)
CLARK, WILLIAM -		1880	19th July 1866	Improvements in sewing-machines and in the devices used to impart motion to the same or to other machines. (Communicated by Albin Warth and Eber- hard Faber.)
CLARE, WILLIAM -		1958	28th July 1866	Rotary engines. (Communicated by Truman Merriam and James Cushing.)
CLARK, WILLIAM -	• -	2041	8th Aug. 1866	Double hydrostatic scales for determining the load of ships or boats. (Communicated by Wilhelm Oscor Reim.)
CLARK, WILLIAM -		2054	9th Aug. 1866	1 - 1 - 1
CLARK, WILLIAM -	-	2066	11th Aug. 1866	Improvements in the utilization of chloride of manganese (residue of the manufacture of chlorine) in the manufacture of peroxide of manganese, chlorine and hydrochloric acid, and in apparatus for the same. (Communicated by Eugène Alphonse Cotelle.)
CLARK, WILLIAM -		2104	16th Aug. 1866	Rudders for ships and other water craft. (Communicated by William Lyman Wetmore and Nicholas David Le Pelley.)

Name of Patentee.		Number of Patent.	Date.	Subject-matter of Patent.
CLARE, WILLIAM -	• •	2119	17th Aug. 1866	Puddling furnaces. (Communicated by Christopher de Graff Baker, Jacob Harlan and Joseph Bell.)
CLARK, WILLIAM -		2194	25th Aug. 1866	Improvements in felting hats and other felted fabrics, and in apparatus for the same. (Communicated by Charles Mossant.)
CLABE, WILLIAM -	-	2220	28th Aug. 1866	Improvements in perfecting or ornamenting lace and other like fabrics, and also in imitations of the same. (Communicated by Auguste Pascal and Felix Varenne.)
CLARK, WILLIAM -	- •	2287	30th Aug. 1866	Apparatus for propelling and steering vessels. (Communicated by Joseph Athanase Ganeval.)
CLARK, WILLIAM -		2316	8th Sept. 1866	Improvements in leather and in machines for manufacturing the same. (Communicated by George Valentine Sheffield and James Fitch Coburn.)
CLARK, WILLIAM -		2351	13th Sept. 1866	Manufacture or ornamentation of cloth and pile fabrics. (Communicated by Pierre Bouvier, Benoit Bouvier, Jean Baptiste otherwise Jules Bouvier and Geoffrey Bouvier.)
CLARK, WILLIAM -	• -	2425	21st Sept. 1866	A new and improved machine for setting and distributing types. (Communicated by John Abercrombie Gray and Samuel Worcester Green.)
CLARK, WILLIAM -	• •	2426	21st Sept. 1866	Securing teeth in saws. (Communicated by The American Saw Company.)
CLARK, WILLIAM +		2427	21st Sept. 1866	Picker motions for looms. (Communicated by Hosea Elliott.)
CLARE, WILLIAM -	• - •	2491	26th Sept. 1866	Improvements in the collection and delivery of letters, parcels and other freight, and in apparatus for the same. (Communicated by Alfred Ely Beack.)
CLARK, WILLIAM -		2513	28th Sept. 1866	Means of reproducing signs, characters and other marks, in the transmission of messages and signals by electric telegraph apparatus. (Communicated by Joseph de Susini, Jean Marie Onésime Tamin and Emile Bondonneau.)
Clark, William -		2514	28th Sept. 1866	Electric telegraphs. (Communicated by Joseph de Susini and Jean Marie Onésime Tamin.)
CLARK, WILLIAM -		2521	29th Sept. 1866	Apparatus for steering vessels. (Communicated by Maurice Aron.)
CLARK, WILLIAM -		2527	1st Oct. 1866	Furnaces for treating metals and other matters. (Communicated by Louis Adolphe Bon.)
Clark, William -		2 578	6th Oct. 1866	Hoisting apparatus and cars for mining purposes.
CLARK, WILLIAM -	-	2579	6th Oct. 1866	(Communicated by George Williams.) Fastenings for purses, cigar cases, travelling bags and other similar articles. (Communicated by Joseph Schoenfeld.)

Name of Patentee.	•	Number of Patent.	Date.		Subject-matter of Patent.
CLARK, WILLIAM -	• -	2589	8th Oct.	1866	Central fire percussion cartridges. (Communicated by Jules Félix Gévelot.)
CLARK, WILLIAM -	• •	2647	12th Oct.	1866	Improvements in heating and warming rooms and other buildings, and in apparatus for the same. (Communicated by Louis Marie Anez.)
CLARK, WILLIAM -	• •	2716	20th Oct.	1866	Electric telegraph apparatus. (Communicated by Joseph de Susini and Jean Marie Onésime Tamin.)
CLARK, WILLIAM -	• •	2823	31st Oct.	1866	Lamp glasses or chimneys. (Communicated by Joseph Lallemand and Godefroi Auguste Guillaume Wagener.)
CLARK, WILLIAM -	- •	2946	10th Nov.	1866	Breech-loading fire-arms and cartridges. (Communicated by Martial Pidault, Guillaume Elièze, otherwise Lagrèze, and Jules Felix Gévelot.)
CLARK, WILLIAM -		2972	13th Nov.	1866	Preparation or treatment of fabrics or materials for the manufacture of various useful articles. (Communicated by Rufina Nöggerath-Temmerman.)
CLARK, WILLIAM -		2987	14th Nov.	1866	Locks. (Communicated by Auguste Léon Gennerat.)
CLARK, WILLIAM -		8056	21st Nov.	1866	Steam-boilers. (Communicated by Laurent Chevalier.)
CLARK, WILLIAM -	•	8114	26th Nov.	1866	Manufacture or preparation of leather and other materials. (Communicated by Jean François Piedallu.)
CLARK, WILLIAM -		8124	27th Nov.	1866	Means and apparatus for indicating the time and distance travelled by vehicles. (Communicated by Jules Henry Delaunay.)
Clark, William -	•	8180	28th Nov.	1866	Improvements in impermeable mastic com- positions, and in their application for various useful purposes. (Communicated by Jean François Abra- ham Henri de Rivière and Jean Laurent Auguste Machabée.)
CLARK, WILLIAM -	•	- 3152	30th Nov.	1866	Manufacture of green coloring matter. (Communicated by Jules Albert Schlumberger.)
CLARK, WILLIAM -	•	- 8173	3rd Dec.	1866	Apparatus for applying and regulating motive-power. (Communicated by Joseph de Susini.)
CLARK, WILLIAM -	-	- 3207	5th Dec.	1866	Rotary engines. (Communicated by Auguste Gerin.)
CLARK, WILLIAM -	•	- 8224	6th Dec.	1866	Electro-magnetic apparatus for obtaining motive-power. • (Communicated by Eloi Poitevin.)
CLARK, WILLIAM -	-	- 3228	7th Dec.	1866	An improved detaching hook. (Communicated by Samuel Brown and Leon Level.)
CLARK, WILLIAM -	-	- 3308	15th Dec.	1866	Carburetters. (Communicated by Francis Stebbins Pease.)
CLARK, WILLIAM -		- 3371	21st Dec.	1866	Apparatus for producing a draught in furnaces and for purifying the smoke therefrom. (Communicated by Claude Moret and Félix Raux.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CLARK, WILLIAM	8872	21st Dec. 1866	Screw valves. (Communicated by John Wilcox.)
CLARK, WILLIAM	8381	22nd Dec. 1866	Boots and shoes. (Communicated by George Washington Tolkurst.)
Clark, William	3405	28th Dec. 1866	Valves. (Communicated by Samuel Joseph Peet.)
CLARK, WILLIAM	3484	29th Dec. 1866	Fixing rails to the sleepers or permanent way of railways. (Communicated by Jules Vautherin.)
CLARK, WILLIAM	8448	31st Dec. 1866	Improvements in the manufacture of hydrogen gas and in apparatus for the same, also in the application of the said gas for lighting and heating, and as a motive-power. (Communicated by Alexandre Paul Victor Heurtebise.)
CLARK, WILLIAM JUDSON -	1816	11th July 1866	Improvements in screw-bolts and in the apparatus employed in manufacturing the same. (Patented by George Haseltine.)
CLARKE, JOHN GOFFE	427	10th Feb. 1866	Range ovens.
CLAUDET, FREDERIC	2858	3rd Nov. 1866	Treating waste solutions obtained from burnt cupreous pyrites.
CLAY, JOHN	2055	9th Aug. 1866	Saddles.
CLAY, WILLIAM	497	16th Feb. 1866	Economizing the heat of gas producers.
CLAY, WILLIAM	2819	31st Oct. 1866	An improved method of utilizing Bessemer and other steel and iron scrap.
CLAYTON, ALFRED	1696	26th June 1866	An improved apparatus for registering the flow of water or other liquids or fluids through pipes or orifices.
CLAYTON, ROBERT	308	31st Jan. 1866	Certain improvements in looms for weaving.
CLAYTON, ROBERT	8254	11th Dec. 1866	Looms for weaving.
CLAYTON, THOMAS	669	· 5th March 1866	Apparatus employed in producing illumi- nating gas from inflammable and volatile liquids.
CLEGG, JOSEPH	52	8th Jan. 1866	Certain improvements in looms for weaving.
CLEGG, JOSEPH	1774	4th July 1866	Manufacture of ribbed pile fabrics.
CLEGG, ROBERT	1661	21st June 1866	Construction of camp or folding bedsteads. (Patented by Benjamin Browne.)
CLEGG, ROBERT	8870	21st Dec. 1866	Construction of camp or folding hedsteads. (Patented by Benjamin Browne.)
CLEGG, ROBERT DAWSON -	390	8th Feb. 1866	Pumps.
CLEGG, ROBERT DAWSON -	1110	20th April 1866	Improvements in bottle stoppers and in the method of fastening the same hermetically. (Communicated by Charles François André Pécaut.)
CLEMENTS, HENRY MARTYN -	8092	24th Nov. 1866	Signals to be used upon railways.
CLENAHAN, JAMES MC	187	20th Jan. 1866	Studs and buttons.
CLIFT, THOMAS	410	9th Feb. 1866	Manufacture of portable chairs.
CLIPTON, HENRY CHARLES -	419 406	10th Feb. 1866 9th Feb. 1866	Machinery for laying veneers on to surfaces.
CLISSOLD, WILLIAM	200	3411 FGD. 1000	An improved construction of clutch for driving machinery.

Name of Patentee.	Number of Patent.	Date.		Subject-matter of Patent.
Clissold, William	1000	7th April 1	1866	Improved machinery for feeding wool and other fibres to preparing and carding machines.
Clossman, François Fréd- [éric de.	2123	18th Aug.	1866	Improved apparatus for saving life and property in cases of shipwreck. (Patented by William Edward Newton.)
CLOUGH, ROBERT	1858	16th July	1866	An improved method of and apparatus for lubricating the spindles of cap spinning and doubling frames, which apparatus is also applicable as a cleaner to fiyer spinning and doubling frames.
Cluderay, William Samuel	355	5th Feb.	1866	Improved apparatus for manufacturing bungs, "shivers," plugs and other articles of a like shape.
Clunan, James	75	10th Jan.	1866	Certain improvements in machinery or apparatus for cutting, shaving, thinning and grinding skins, hides or pelts, in a tanned, dressed or partly dressed state.
Clunes, Thomas	1963	30th July	1866	Machinery or apparatus for actuating and regulating railway points and signals.
CLUTTERBUCK, THOMAS	1243	2nd May	1866	An improved construction of pocket for male and female attire.
Clutton, John	82	10th Jan.	1866	Wedges, keys or quoins for securing the rails of railways in their chairs. (Communicated by Theodore Despiau.)
CLYDESDALE, ROBERT HARDIE	1718	27th June	1866	Apparatus for finishing tobacco.
CLYNE, JOHN	1528	lst June	1866	A new or improved portable mangle. (Communicated by Henry William Put- nam.)
Coates, John	2684	17th Oct.	1866	Packing for piston, valve, pump or other such rods or spindles.
COBANKS, WILLIAM HENRY -	2082	14th Aug.	1866	An improved mode of fastening boiler tubes. (Patented by Alfred Vincent Newton.)
Cobe, Louis	3211	6th Dec.	1866	Certain improvements in machinery or apparatus for pressing, smoothing or "ironing" the surfaces of fabrics.
Coburn, James Fitch	2316	8th Sept.	1866	Improvements in leather and in machines for manufacturing the same. (Patented by William Clark.)
Cochran, John Webster -	834	21st March	1866	Improvements in projectiles and in cart- ridges. (Patented by Clinton Edgcumbe Brooman.)
Cochrane, Alexander -	1386	16th May	1866	Improved methods of fastening covers or cushions to chairs and other similar seats.
Cochrane, Arthur Auck- [LAND LEOPOLD PEDRO.	1158	25th April	1866	An improvement in apparatus for heating and evaporating liquids and fluids.
Cochrane, Honble. Arthur [Auckland.	1162	25th April	1866	Manufacture of gas.
Cochrane, David	1588	11th June	1866	Spinning frames.
Cockcroft, John	1553	5th June	1866	Improvements in or applicable to machinery or apparatus for spinning worsted or other fibrous substances, known as capframes.
Coffey, Henry	2005	3rd Aug.	1866	Machinery or apparatus for staining or coat- ing the surfaces of paper with color or other material.

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Name of Patentee.		Number of Patent.	Date.	Subject-matter of Patent.
Coffey, John Ambrose	_]	2161	23rd Aug. 1866	Self-acting steam and liquid safety gauges.
Coffey, John Ambrose	-	2556	4th Oct. 1866	Improved mechanical contrivances applied able to syphons, also adaptable in the production of pumps of improved construction.
Coffey, John Ambrose	•	3179	3rd Dec1866	Improved apparatus for heating and coolin fluids, especially useful in dry destructiv or other distillations, evaporation, refrige ration and the generation of steam.
Cohen, David	-	1239	2nd May 1866	Dry gas-meters.
COHN, DAVID LEOPOLD -	-	610	28th Feb. 1866	Improvements in breech-loading revolvin fire-arms, and in apparatus for extractin cartridges or cartridge cases therefrom. (Communicated by Joseph Grünbaum.)
Coignard, Louis	-	3386	19th Dec. 1866	Improvements in centrifugal pumps an in the joints or junctions of pipes an tubes. (Patented by Michael Henry.)
Colby, Augustus James	-	2264	3rd Sept. 1866	A new and useful improvement in hoor skirts. (Patented by Henri Adrien Bonneville.)
Cole, Frederick	-	171	18th Jan. 1866	Lithographic presses.
Cole, James, jun'	-	777	15th March 1866	Manufacture of elastic gusset webs.
Cole, John	-	1339	10th May 1866	An improved mode of and means for extracting cartridge cases from breech-loading fire-arms.
Cole, John Cyrus -	-	1612	13th June 1866	Coffins.
Cole, Maurice	-	605	27th Feb. 1866	Construction of street cabs and harness for the same.
Cole, Thomas John -	-	711	8th March 1866	Hair pins.
Cole, Thomas John -	-	867	23rd March 1866	Improvements in hair and other pins, an in cases for containing the same.
Cole, William	-	986	6th April 1866	Manufacture of elastic fabrics.
Coleman, Henry Septimu	18 -	2748	24th Oct. 1866	Apparatus for reducing or comminuting cake.
Coleman, Joseph James	-	8086	23rd Nov. 1866	Manufacture of hydraulic cements.
Coleman, Thomas Henry	-	3086	23rd Nov. 1866	Manufacture of hydraulic cements.
Coles, Cowper Phipps -	-	1487	22nd May 1866	Construction of vessels of war, forts as other defences.
Colley, Edward Edward	8 -	652	3rd March 1866	An improved self-acting card distributor.
Collins, Benoni	-	1289	5th May 1866	Improvements in or applicable to carriage buffer, draw and other springs.
"Collins Company," The	-	2754	25th Oct. 1866	Manufacture of ploughs. (Patented by Benjamin Joseph Barna Mills.)
Collins, Henry Haley	-	51	6th Jan. 1866	Printing presses known as copper pla presses.
Collins, James	-	2063	11 Aug. 1866	Certain improvements in stamps for pr ducing impressions, which are also a plicable to cylinder printing. (Communicated by Jabez Elverson.)
Collins, Smith	-	2655	13th Oct. 1866	Tires for carriage wheels.
Collis, Edward John -	-	088	2nd April 1866	Coke ovens.
Collis, William Blow	-	938	2nd April 1866	Coke ovens.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
COLTON, ISAAC COWLES	2156	22nd Aug. 1866	An improved process for bleaching with the aid of hydrostatic and pneumatic pressure conjointly or separately, wood, straw and other fibrous material for the manufacture of paper pulp, and for bleaching flax, hemp, thread, yarns, felts, cloths and other fibrous and textile materials. (Patented by George Haseltine.)
Comas, Thomas Mc	3067	22nd Nov. 1866	Raising sunken vessels. (Communicated by Samuel William Maquay.)
Combe, John	2890	7th Nov. 1866	Machinery for spinning fibrous substances.
Comer, Henry	2944	10th Nov. 1866	File cutting machines. (Patented by John Henry Johnson.)
Comery, William	111	13th Jan. 1866	Machinery or apparatus employed in the manufacture of looped or knitted fabrics.
COMPIELD, THOMAS, the younger	127	15th Jan. 1866	Stopping and preventing slip from wet rails of locomotives and railway trains, and stopping carriages generally, and equalising force without fly wheels.
Condict, Nathan Wood- [Hull, jun ² .	2677	17th Oct. 1866	Improvements in stamps, hammers and apparatus connected therewith, actuated by steam, compressed air or other aëriform fluid, the said improvements being applicable to various purposes where percussive force is employed. (Patented by John Garrett Tongue.)
Condie, James	1836	12th July 1866	An improved construction of folding chair. (Patented by Alfred Vincent Newton.)
CONDY, HENRY BOLLMANN -	3411	28th Dec. 1866	Improvements in the manufacture of chlorine and in preparations for evolving chlorine, for disinfecting and other purposes.
CONISBEE, WILLIAM	634	1st March 1866	Machinery for grinding and equalizing the thickness of lithographic stones.
Conlong, James	2603	9th Oct. 1866	Improvements in preparing fibrous materials to be spun, parts of which are applicable to the warping of yarns or threads, and other parts to the washing of yarns and textile fabrics.
Connell, James	2100	15th Aug. 1866	Manufacture of elastic and other fabrics.
Connor, Charles, Cunning- [HAM.	2875	15th Sept. 1866	Means or apparatus for the preparation or treatment of flax, tow, hemp and other vegetable fibrous matters.
Constantine, Joseph	2448	24th Sept. 1866	Construction of stoves or other heating apparatus for warming and ventilating public and private buildings, baths, hothouses and drying houses.
Cook, Samuel	271	27th Jan. 1866	Machinery or apparatus for sizing or pre- paring yarns or warps to be woven.
Cook, Thomas	1762	2nd July 1866	Improved machinery for uniting together materials employed in the manufacture of boots and shoes, saddlery, driving bands and such like articles as require to be strongly united together.
Cooke, Henry John	2636	12th Oct. 1866	An improved bolt and rivet and nut making machine.
Cooke, James Samuel	2912	8th Nov. 1866	Axle-boxes. (Communicated by Joseph Green Cooke.)

Name of Patentee.	Number of Patent.	Date.		Subject-matter of Patent.
Cooke, John	1458	25th May	1866	Improvements in the rails or permanent way of railways, and in the means of guiding and retaining locomotives and carriages thereon, for obtaining additional safety in travelling.
Соокв, Јоверн	1610	13th June	1866	Miners' safety lamps.
Cooke, Joseph Green	2912	8th Nov.	1866	Axle-boxes. (Patented by James Samuel Cooke.)
Cooke, William	991	6th April		Means of and apparatus for preventing or curing smoky chimnies.
Cooke, William Fothergill	438	12th Feb.	1866	Improvements in machinery used in cutting stone, slate and other minerals, and in forming tunnels, galleries and roads.
Cooke, William Fothergill	2192	25th Aug.	1866	Machinery and tools for cutting slate, stone, marble and other minerals.
Cookes, Edward	19 4 0	26th July	1866	A new and improved explosive compound mixture. (Patented by Henri Adrien Bonneville.)
Cooper, Henry	248	25th Jan.	1866	Pianofortes.
Cooper, John	2102	15th Aug.	1866	Battens.
Cooper, Joseph Rock	8388	22nd Dec.	1866	Breech-loading fire-arms.
COOPER, THOMAS, the younger	1056	14th April	1866	Certain descriptions of locks.
Cooper, Thomas Henry -	326 1	11th Dec.	1866	Railway buffers.
Cooper, William Temple -	899	27th March	1866	Treatment for the cure of the venereal disease in the male sex.
Copeland, James	618	28th Feb.		Apparatus for producing ice.
Copeland, William Vickers	2221	28th Aug.		Improvements in the manufacture or pro- duction of looped fabrics made on warp lace machines, and in the machinery or apparatus employed therein.
COPLEY, JOSIAH, the younger -	2948	10th Nov.	1866	Improvements in the manufacture of chains and in the machinery or apparatus employed therein. (Patented by John Henry Johnson.)
CORBETT, THOMAS	1920	24th July	1866	Reaping-machines.
Cordurié, Frederic	3273	13th Dec.	1866	Treatment of lead and argentiferous litharge. (Patented by Clinton Edgcumbe Brooman.)
CORDWELL, JOSEPH	230	24th Jan.	1866	Certain improvements in machinery or apparatus to be employed in preparing cotton and other fibrous substances for spinning.
Corey, Augustus	2704	19th Oct.	1866	An improved type setting machine. (Patented by George Davies.)
CORKINDALE, DUGALD MC -	1225	lst May		Rolling mills.
CORMACK, WILLIAM	1242	2nd May	1866	Improvements in deodorising, revivifying and calcining animal and vegetable charcoal, and in the apparatus employed therein.
CORMACK, WILLIAM	2460	25th Sept.	1866	Means and apparatus for effecting the revivification of animal charcoal.
Cornish, Kenneth Henry -	1828	12th July		Breech-loading fire-arms.
CORSON, WILLIAM REED -	2492	27th Sept.	1866	Affixing knobs or handles to the spindles of door furniture.
Costallat, Amable Adolphe	1244	2nd May	1866	A new means for manufacturing artificial flowers.

Name of Patentee.	Number of Patent.	Date.	- Subject-matter of Patent.
Cotelle, Eugène Alphonse-	2066	11th Aug. 1866	Improvements in the utilization of chloride of manganese (residue of the manufacture of chlorine) in the manufacture of peroxide of manganese, chlorine and hydrochloric acid, and in apparatus for the same. (Patented by William Clark.)
COTTAM, EDWARD	161	17th Jan. 1866	Hydraulic presses.
COTTAM, EDWARD	624	lst March 1866	Improvements in hydraulic presses, partly applicable to pumps.
COTTAM, GEORGE HALLEN -	1178	26th April 1866	Manufacture of iron bedsteads.
COTTAM, HENRY RICHARD -	1178	26th April 1866	Manufacture of iron bedsteads.
COTTER, WILLIAM	459	13th Feb. 1866	Heating apparatus used for melting glue and for heating wood and irons.
Cotterill, Charles Forster	1698	26th June 1866	Improvements in the manufacture of earthen- ware and other pipes, and in machinery or apparatus to be employed in the said manufacture.
Cotterill, Charles Forster	2059	10th Aug. 1866	Improvements in the manufacture of earthen- ware and other pipes, and in machinery or apparatus to be employed in the said manufacture.
Cotti, Francesco	1398	16th May 1866	Improved means and apparatus for pre- serving and saving life and property at sea in case of shipwreck.
Couch, George Henry	1983	lst Aug. 1866	An improved tenoning and shouldering machine.
Couchman, Richard	2370	14th Sept. 1866	Boxes or cases for packing and exhibiting goods or articles of various kinds.
Coughin, Thomas Townsand	71	9th Jan. 1866	Machinery or apparatus worked by water for raising, lifting, lowering and drawing goods of every description.
Couldery, Thomas William	8437	31st Dec. 1866	Manufacture of trowsers.
Coulson, John	8084	23rd Nov. 1866	Improvements in apparatus for elevating straw and other produce, also applicable to other purposes where gearing is required.
Coun, HENRY Townsend Mc	2942	10th Nov. 1866	Machinery for cutting and heading nails. (Patented by John Garrett Tongue.)
COURMONS, PIERRE	1068	14th April 1866	A new or improved mode of printing patterns on dyed silks and all kinds of dyed goods. (Patented by Richard Brabason Legge.)
COURTENAY, ROBERT HENE-	8118	26th Nov. 1866	Preparation of printing surfaces by the aid of photography.
Cousteaux, Henri Aux -	1188	21st April 1866	A new method of advertising.
COUVERUR, LOUIS	881	21st March 1866	Certain improvements in self-acting mules for spinning. (Patented by Louis Rudolph Bodmer.)
COVENTRY, ARTHUR	3247	10th Dec. 1866	Improvements in the construction and manufacture, and in apparatus employed in the manufacture, of tool holders and cutters, and in machinery for grinding or sharpening cutters and tools used in laths, in planing and other machines for cutting and shaping metals and other materials.
COWDERY, GEORGE	618	28th Feb. 1866	Machinery for making bricks.
Cowles, George	1522	31st May 1866	Improvements in the deodourizing of crude rock or mineral oil, and in the preparation of lubricating oil therefrom. (Patented by John Henry Johnson.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Cowper, Edward Alfred -	2069	13th Aug. 1866	Machinery for sewing.
Cox, Edgar	980	5th March 1866	Portable dark chambers or tents for the pur- poses of photographic manipulation in the field, and of containing and transporting the necessary apparatus.
CRABTREE, JAMES	1032	11th April 1866	Means or apparatus used in washing or scouring wool and other fibres.
Crabtree, Jonas	1032	11th April 1866	Means or apparatus used in washing or scouring wool and other fibres.
CRABTREE, JOSEPH	1032	11th April 1866	Means or apparatus used in washing or scouring wool and other fibres.
CRAIG, HENRY GRIFFITH -	2065	11th Aug. 1866	An improved needle gun.
CRAIG, JOHN	1856	11th May 1866	Securing door handles.
CRANSTON, JAMES	1580	8th June 1866	Horticultural glass houses.
CRANSTON, WILLIAM	1258	3rd May 1866	Scrapers for cleaning gun-barrels and other
[M°Intyre.			tubes. (Communicated by Ephraim Lauriston Pratt.)
CRAVEN, THOMAS COWELL -	1758	2nd July 1866	An improvement in saws for cotton gins.
CEAWFORD, HUGH	1588	lst June 1866	Improvements in finishing thread and in the machinery and apparatus employed therefor.
CRAWFORD, HUGH	2962	12th Nov. 1866	Improvements in finishing thread and yarns, and in the machinery or apparatus employed therefor.
Crawford, James	1588	1st June 1866	Improvements in finishing thread and in the machinery and apparatus employed therefor.
Crawford, James	2962	12th Nov. 1866	Improvements in finishing thread and yarns, and in the machinery or apparatus em- ployed therefor.
CRAWFORD, JOSHUA	1819	8th May 1866	Abdominal supporters.
Crawshay, George	2947	10th Nov. 1866	Improvements in the treatment of scoria or slag of copper ores, or scoria from other ores containing iron, in order to extract the iron therefrom, and in refining pig or cast iron to improve the quality of wrought or cast iron.
CRAWSHAY, GEORGE	2948	10th Nov. 1866	Refining pig or cast iron for puddling into wrought or malleable iron.
CRAWSHAY, GEORGE	2957	12th Nov. 1866	I
Crean, John	662	5th March 1866	An improved fire alarm.
CREASY, WILLIAM	2876	15th Sept. 1866	Machinery or apparatus or drying or other- wise treating grain and other substances.
CREUZBAUR, ROBERT	657	3rd March 1866	Certain improvements in steam cultivators, parts of which improvements are applicable to traction engines and to portable engines used for other purposes. (Patented by John Bischoff.)
CREUZBAUR, ROBERT	1783	5th July 1866	Improved steering apparatus. (Patented by Alfred Vincent Newton.)
CREUZBAUR, ROBERT	1785	5th July 1866	Construction of connecting links or hooks. (Patented by Alfred Vincent Newton.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CREUZBAUR, ROBERT	2456	24th Sept. 1866	Apparatus for steering vessels. (Patented by Alfred Vincent Newton.)
CRICHTON, ALEXANDER	1488	21st May 1866	Marine steam-engines and surface condensers.
CRICHTON, DAVID	2628	11th Oct. 1866	Looms for weaving.
CRICHTON, DAVID	2918	9th Nov. 1866	Looms for weaving.
CRIGHTON, DUNCAN	2628	11th Oct. 1866	Looms for weaving.
CRIGHTON, DUNCAN	2918	9th Nov. 1866	Looms for weaving.
Crighton, William	8157	1st Dec. 1866	Certain improvements in apparatus to be employed in the preparation and manu- facture of cotton, wool, silk and other fibrous substances.
CRISPIN, WILLIAM HENRY -	1280	5th May 1866	An improved steam roller for agricultural purposes.
Crockford, Charles	8117	27th Nov. 1866	Improvements in the reduction and treat- ment of zinc ores, in the manufacture of spelter, and in the utilization of the pro- ducts resulting therefrom, and also in the construction of the furnaces and apparatus employed for such purposes.
CROCKFORD, CHARLES	3118	27th Nov. 1866	Obtaining useful products from certain materials produced in the process of galvanising or coating iron with zinc.
Cropts, John	1033	11th April 1866	Breech-loading fire-arms.
Croll, Alexander Angus -	814	19th March 1866	Arranging conduits or channels for the reception of gas, water and other mains, tubes or pipes, and telegraphic wires, also for the conveying away of smoke or noxious vapours from buildings, and for the ventilation of buildings and other places.
CROMPTON, GEORGE	912	29th March 1866	Looms for weaving. (Patented by William Robert Lake.)
CROMPTON, GEORGE	2990	15th Nov. 1866	Looms for weaving. (Patented by William Robert Lake.)
CRONDACE, CHRISTOPHER [JOHN.	155	17th Jan. 1866	Machinery or apparatus for manufacturing and pressing fire bricks, which machinery or apparatus is also applicable to the manufacture and pressing of common clay and other bricks.
CROPPER, HENRY SMITH -	2403	19th Sept. 1866	Printing machines. (Communicated by George Gordon.)
Crosby, Charles	1884	19th July 1866	Sewing-machines. (Patented by Frederick Neidlinger.)
Crosby, Charles Howard -	1095	18th April 1866	Eyeletting machines. (Patented by William Young Edwards.)
Crosland, James Stead -	1161	25th April 1866	Improvements in or applicable to steam- engines.
CROSS, WILLIAM WHEELER -	1300	7th May 1866	Working the extractors for central fire guns.
Crossley, Edwin	148	16th Jan. 1866	Improvements in the construction of steam- boilers, which improvements are also ap- plicable to the construction of other vessels of a like character.
Crossley, Frank	2774	26th Oct. 1866	Machinery for separating the fibre of flax or other vegetable substances requiring such treatment.
CROSSLEY, FRANK	3012	16th Nov. 1866	Machinery for cutting india-rubber.
	3138	29th Nov. 1866	Means or apparatus for driving wire-blocks.

Name of Patentee.	Number of Patent.	Date.		Subject-matter of Patent.
Crossley, Louis John	1850	14th July	1866	Preparing and spinning wool and other fibrous substances.
CROXALL, JOSEPH BOONHAM -	2	lst Jan.	1866	Ventilators and mirrors for hats and othe coverings for the head.
CRUMP, CHARLES	97	lith Jan.	1866	Preparation of tetra-chleride of carbon.
CRUMP, CHARLES	2418	20th Sept.	1866	Solvents for resins and resinous substances caoutchouc, gutta-percha, oils and fats.
Cumming, Alexander	482	15th Feb.	1866	Apparatus to be used for teaching swim- ming.
CUMMING, GEORGE WILLIAM -	429	10th Feb.	1866	Apparatus for heating pipes by hot water.
CUNNINGHAM, ALBERT [ROBERT.]	1517	31st May	1866	Shaving brushes.
CUNNINGIIAM, HENRY DUNCAN [PRESTON.	48	5th Jan.	1866	Improvements in working and in the service of guns, with fittings thereof, and in gun carriages.
Cunningham, John	1455	24th May	1866	Weaving ornamental fabrics.
CUNNINGHAM, ROBERT	1455	24th May	1866	Weaving ornamental fabrics.
CUNNINGHAM, WILLIAM JOHN	1045	13th April	1866	Means or apparatus employed in drilling and ornamenting metal, wood and other similar substances.
Curd, Claverhouse Alfred [Mc.	2611	9th Oct.	1866	Sewing-machines.
CURRENT, WILLIAM JAMES -	2085	15th Aug.	1866	An improved and simplified code of signals to be used by day or night at sea or upon land, with flags and ventilating lamps.
CURRY, WILLIAM	1889	16th May	1866	Improvements in the manufacture of bricks, tiles and other plastic substances, and in the machinery or apparatus employed therefor.
Curtis, John	1175	26th April	1866	Draining and consolidating cuttings, em- bankments and other parts of railways.
CURTIS, WILLIAM JOSEPH -	1810	10th July	1866	Construction of breech-loading or repeating fire-arms.
CURTIS, WILLIAM JOSEPH -	2827	10th Sept.	1866	Apparatus for steering steam vessels.
CUSACK, JAMES WILLIAM -	8823	18th Dec.	1866	Improved means or method for facilitating artillery and rifle practice at long distances on short ranges.
Cushing, James	1958	28th July	1866	Rotary engines. (Patented by William Clark.)
CUTHBERT, JOHN SPRECKLEY	1809	10th July	1866	Painters' easels.
CUTHBERT, WILLIAM	1077	16th April	1866	Steam whistles.
CUTHBERT, WILLIAM	2288	6th Sept.	1866	Steam whistles.
CUTLER, EDWARD ADAM -	1998	2nd Aug.	1866	Carding-engines. (Patented by George Tomlinson Bougfield.
CUTLER, WILLIAM HENRY -	8409	28th Dec.	1866	Cocks for stopping and regulating the flow of steam, water and other fluids.
Cuttier, Antoine	1673	22nd June	1866	Improved apparatus for cutting, grinding and polishing the bottoms of tumblers, wine-glasses, decanters and other articles in glass. (Patented by Charles de Grelle.)
CUTTS, THOMAS BUTLER -	850	5th Feb.	1866	Manufacture of Valenciennes lace in twist

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
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DACK, WILLIAM NATHAN -	2405	19th Sept. 1866	Certain improvements in steam-engines.
DACK, WILLIAM NATHAN -	2406	19th Sept. 1866	Certain improvements in machinery or apparatus for planing metals.
DACRE, GEORGE	2801	30th Oct. 1866	Lathes.
DAFT, THOMAS BARNABAS -	2999	15th Nov. 1866	Constructing harbours.
DAGGETT, LYMAN	2811	30th Oct. 1866	Boots and shoes.
DAGLISH ROBERT	2289	30th Aug. 1866	Steam generators.
Dinne, Friederich Wilhelm	2978	13th Nov. 1866	Picks or mandrils such as are used for cutting coal and other minerals.
DALBY, SAMUEL	832	21st March 1866	Improved means or apparatus for cutting coals and other minerals.
DALE, JOHN	2656	13th Oct. 1866	Sulphuring yarns and fabrics.
Dale, John Gallemore -	2656	13th Oct. 1866	Sulphuring yarns and fabrics.
Dale, Richard Farrell -	2091	15th Aug. 1866	Improvements in pumps and in adapting them for propelling vessels and for other purposes.
Dales, Charles	1105	19th April 1866	Improvements in eye glasses usually termed shooting glasses or hat frames, which improvements are also applicable to other spectacles.
Dalgety, Alexander	3164	1st Dec. 1866	Connections between railway engines and carriages.
Dalhoff, Jörgen Balthazar	288	30th Jan. 1866	Manufacture of files by means of machinery for smoothing and cutting them.
Dalk, John	1407	18th May 1866	An improved method of and apparatus for preparing and fluting picture and other frames and mouldings. (Patented by Richard Gesell and Alfred Lea.)
Dallas, Duncan Campbell -	1884	9th May 1866	Production of printing and other surfaces in relief or intaglio.
Dallmeyer, John Henry -	896	8th Feb. 1866	An improved photographic lens.
Dallmeyer, John Henry -	1641	18th June 1866	Compound lenses suitable for photographic uses.
DALLMEYER, JOHN HENRY -	2502	27th Sept. 1866	Compound lenses suitable for photographic uses.
DAMBRINE, SOPHIE (Widow Polydore Massion.)	1060	14th April 1866	Beds for invalids and other sick and infirm persons. (Patented by Henri Adrien Bonneville.)
DANCER WILLIAM	798	17th March 1866	Dyeing and printing textile fabrics or yarns.
DANCHELL, FREDERICK HAHN, [C.E.		24th Aug. 1866	Improvements in the manufacture of floor cloths and coverings and similar called fabrics, and also of picture frames, articles of furniture, and ornaments thereon. (Communicated by Henry Ludwig Danchell.
Danchell, Henry Ludwig -	2180	24th Aug. 1866	Improvements in the manufacture of floor cloths and coverings and similar called fabrics, and also of picture frames, articles of furniture, and ornaments thereon. (Patented by Frederick Hake Danchell, C.B.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Danford, Ebenezer	486	15th Feb. 1866	An improved mode of and apparatus for generating superheated steam. (Patented by Alfred Vincent Newton.)
Daniel, Joseph	2538	3rd Oct. 1866	Certain improvements in hydraulic presses.
DANIBLL, JOHN WILLIAM -	2551	4th Oct. 1866	Improvements in the construction and mode of propulsion of locomotive carriages, and in apparatus to be used in connection therewith.
Darbel, Alexander Ray- [mond François Nazaire.	2691	18th Oct. 1866	Manufacture of caustic soda.
DARBY, JOHN	2185	20th Aug. 1866	Improvements in fire-arms of all calibre, and for the conversion of muzzle-loading guns to breech-loading guns.
Dare, Joseph, junt., B.A.	216	23rd Jan. 1866	Pyrotechnics.
DARLING, JOHN	3215	6th Dec. 1866	An improved penholder and means of sup- plying ink to pens.
DARLINGTON, JOHN	8895	26th Dec. 1866	Machinery for applying hydraulic power to mining and other purposes.
DARLOW, WILLIAM	811	31st Jan. 1866	Electro-magnetic engines for obtaining and applying motive-power.
DARLOW, WILLIAM	2886	7th Nov. 1866	A new magnetic compound applicable to the manufacture of articles suitable for curative and other beneficial and useful purposes.
DARRAGH, RICHARD	· 1268	4th May 1866	Shuttles.
DART, EDWARD	1674	22nd June 1866	An improved construction of rotary engine. (Patented by Alfred Vincent Newton.)
DART, HENRY CURTIS	1674	22nd June 1866	An improved construction of rotary engine. (Patented by Alfred Vincent Newton.)
DAVENPORT, WILLIAM WILSON	8159	1st Dec. 1866	Improved machinery for untwisting, open- ing and carding all kinds of rope and cordage. (Patented by William Edward Newton.)
DAVEY, JOHN	2348	12th Sept. 1866	Thrashing-machines.
DAVID, JUSTIN HENRY	925	31st March 1866	Bleaching books, engravings, paper, cotton and other similar articles and substances. (Patented by John Henry Johnson.)
Davidson, Jonathan	420	10th Feb. 1866	Improvements in the reefing of sails, and in the machinery or apparatus connected therewith.
DAVIDSON, WILLIAM	494	16th Feb. 1866	Improvements applicable to square topsails and topgallant sails.
DAVIES, GEORGE	105	12th Jan. 1866	An improved method of and apparatus for finishing impressions (in colored gelatine or other soluble material), obtained from metallic or other plates produced by the aid of photography.
DAVIES, GEORGE	888	5th March 1866	Construction of portable steam-engines. (Communicated by Isidore Nillus the younger.)
DAVIES, GEORGE	945	3rd April 1866	Braiding and weaving machines. (Communicated by Florence Lucas Veerkamp and Charles Francis Leopold.)
DAVIES, GEORGE	1003	7th April 1866	Apparatus for heating houses and apartments. (Communicated by David Greene Haskins.)
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Name of Patentee			Number of Patent.	Date.		Subject-matter of Patent.
Davies, George -	•	-	·1017	9th April	1866	Improvements in the process of de-sulphuration, and in the apparatus employed for such process. (Communicated by Amédée François Rémond.)
DAVIES, GEORGE -	-	-	1215	30th April	1866	O Improvements in or applicable to carriages. (Communicated by Isaac Merritt Singer.)
DAVIES, GEORGE -	-	-	1226	lst May	1866	Insulators for telegraph wires. (Communicated by David Brooks.)
DAVIES, GEORGE -	•	-	1227	lst May	1866	Steam-boilers. (Communicated by William Schaubel.)
Davies, George -	-	-	1240	2nd May	1866	Improvements in the method of heating the boilers of locomotive and other steamengines, and in the apparatus employed for such purpose. (Communicated by David Greene Haskins.)
Davies, George -	•	•	1282	5th May	1866	Improved apparatus for exhausting and compressing air, applicable to the transmission of despatches and other objects through tubes, and to raising water. (Communicated by Jean Baptiste Java Mignon and Stanislas Henri Rouart.)
DAVIES, GEORGE -	-	•	1487	28th May	1866	Improved apparatus for supplying steam- boilers with water. (Communicated by Emmett Quinn.)
DAVIES, GEORGE -	-	-	1675	23rd June	1866	An improved steam gauge. (Communicated by Emmett Quinn.)
DAVIES, GEORGE -	-	-	1807	10th July	1866	An improved neck-tie or scarf retainer. (Communicated by Jacob Albert Eshleman.)
Davies, George -	•	-	1917	24th July	1866	Manufacture of sulphate of soda and sul- phate of potash. (Communicated by Paul Rémond.)
DAVIES, GEORGE -	-	-	2040	8th Aug.	1866	An improved mode of and apparatus for printing on glass and other materials. (Communicated by Isaac Lewis Miles.)
DAVIES, GEORGE -	-	•	2422	21st Sept.	1866	An improved fabric to be used for the ma- nufacture of driving belts, hose, and for other useful purposes. (Communicated by Thomas Roberts White and William Glenn Bedford.)
Davies, Grorge -	-	•	2704	19th Oct.	1866	An improved type setting machine. (Communicated by Augustus Corey and John M'Mullin Harper.)
Davies, George -	-	•	2780	27th Oct.	1866	An improved rivetting press for securing buttons to fabrics. (Communicated by Willoughby Hahn Reed.)
DAVIES, GEORGE -	-	-	3005	16th Nov.	1866	Method of and apparatus for stopping or closing vessels. (Communicated by Pierre Labat and Bassot, Brothers.)
DAVIES, GEORGE -	-	•	8006	16th Nov.	1866	Inkstands. (Communicated by Pierre Labat and Bassot, Brothers.)
DAVIES, GEORGE -	•	-	3331	19th Dec.	1866	Cylindrical printing presses. (Communicated by Louis Theodore Verney.)
DAVIES, JAMES -	-	-	3241	8th Dec.	1866	An improvement in parallel rulers.
Davies, John Baile	Y -	-	2745	24th Oct.	1866	Extracting metals from titaniferous iron sand, or minerals containing metals.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Davies, John Lacey	1004	7th April 1866	Certain improvements in looms for weaving.
DAVIES, JOHN LACEY	1199	28th April 1866	Certain improvements in looms for weaving. (Communicated by Paul Rebuschinsky and William Cheetham.)
Davies, John Lacey	2753	25th Oct. 1866	Certain improvements in cotton gins. (Communicated by Frederick Vedova.)
DAVIES, SAMUEL	78	10th Jan. 1866	An improved turntable and weighing ma- chine combined.
Davis, Benjamin	279	29th Jan. 1866	Hydraulic machinery.
Davis, Charles	331	2nd Feb. 1866	Sewing-machines.
DAVIS, GEORGE DANIEL	405	9th Feb. 1866	Machinery for working rudders.
Davis, Henry Francis	690	7th March 1866	A new chemical process for manufacturing artificial tea.
DAVIS, JAMES	921	31st March 1866	An improved method of preventing the putrefactive decomposition of vegetable and animal substances, and utilizing the same for agricultural purposes.
Davis, James	922	31st March 1866	Improvements in obtaining caustic alkalies to be used as disinfectants and decarbonizers, and the means by which the same are to be applied, as also for applying the gases liberated in the process to the conversion of iron into steel, and for the manufacture of manures.
DAVIS, JAMES	2230	29th Aug. 1866	An improved method of treating limestone, and applying the products for purifying and rendering water palatable, and for imparting a briskness to other beverages, as also for utilizing the substances to the various purposes of the builder.
Davis, John	67	9th Jan. 1866	Breaks for railway and tramway carriages. (Patented by James Marius Macrum.)
Davis, John	70	9th Jan. 1866	Apparatus and process for distilling oils and other liquids. (Patented by James Marius Macrum.)
Davis, The Reverend Thomas	2206	27th Aug. 1866	An improved method of and apparatus for ventilating dwelling houses or other buildings.
Davis, William Stamford -	1893	21st July 1866	An improved roller for window blinds, maps, almanacks and other similar articles.
DAVY, ALFRED	3153	30th Nov. 1866	Chair supports for the rails of railways.
Daw, George Henry	2613	30th Oct. 1866	Improvements in breech-loading fire-arms, also in the manufacture of cartridges, and apparatus employed therein.
Dawson, Dan	1723	28th June 1866	Improved means of and apparatus for ex- tinguishing fire in steam ships, mills, manufactories and other buildings.
Dawson, David	1723	28th June 1866	Improved means of and apparatus for ex- tinguishing fire in steam ships, mills, manufactories and other buildings.
Dawson, Edward	3001	15th Nov. 1866	An improved method for consumption of smoke and saving of fuel, without the least loss of steam power.
Dawson, Edward Convers -	2639	12th Oct. 1866	Cases for holding preserved meat and other substances.
Dawson, Thomas	2891	7th Nov. 1866	Sheathing vessels.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DAWSON, WILLIAM RICHARD	2745	24th Oct. 1866	Extracting metals from titaniferous iron sand, or minerals containing metals.
DAY, GEORGE	1847	14th July 1866	An improved apparatus for stopping or curbing horses when they run away or become unmanageable.
Day, John	2721	22nd Oct. 1866	Certain improvements in vehicles or carriages for the conveyance of passengers.
D'Assumpcao, CLEMENTE [Augusto.	8072	22nd Nov. 1866	An improved construction of iron for ironing. (Patented by Clinton Edgcumbe Brooman.)
D'Azambuja, Antoine	262	26th Jan. 1866	Machinery for the manufacture of asphalted felt. (Patented by Richard Archibald Brooman.)
DE BALLYHIGUE, BARON ALFRED ANTOINE DE CAN- [TILLON.	1 94 0	26th July 1866	A new and improved explosive compound mixture. (Patented by Henri Adrien Bonneville.)
DEBERENGER, PHILIP ARTHUR	2179	24th Aug. 1866	Lime and cement kilns.
Dr Briges, Malbec	2869	5th Nov. 1866	Obtaining photographic pictures.
DE BRIOU, HENRY EDWARD [FRANCIS.	894	8th Feb. 1866	Improved compositions for preserving metals from oxidation, corrosion and galvanic action, for protecting metals used in the construction of ships against the destructive effects of sea water, and preventing their fouling, for protecting wood from the attacks of animalculæ, and preserving wood from damp, rot and decay, for excluding damp from walls, and for use in submarine and other telegraphy.
DE CARSARIS, CLEMENTE -	550	22nd Feb. 1866	Preparing hides and skins for tanning.
DE CARSARIS, CLEMENTE -	1087	18th April 1866	Projectiles.
DE CAESARIS, CLEMENTE -	1271	4th May 1866	Preparing hides and skins for tanning.
DE CARPORT, HENRI MARIE [JOSEPH LE NEPVOU.	2971	13th Nov. 1866	An improved method of and arrangement of engine for towing or hauling barges and other vessels, which arrangement of engine is also applicable for other tractive purposes. (Patented by Chinton Edgcumbe Brooman.)
DE CLOSSMAN, FRANÇOIS [FRÉDÉRIC.	2123	18th Aug. 1866	Improved apparatus for saving life and property in cases of shipwreck. (Patented by William Edward Newton.)
De Gablenz, Antoine Baron	989	6th April 1866	Improvements in anti-friction bearings applicable to running shafts and axietrees of machines and vehicles of all descriptions.
DE GABLENZ, HENRY ERNEST BARON, jun'.	466	14th Feb. 1866	An improved construction of submarine telegraphic cable for the transmission of electric despatches.
De Gaudel, Charles Franck	2821	10th Sept. 1866	Making boot legs of one piece.
DE GRELLE, CHARLES	1678	22nd June 1866	Improved apparatus for cutting, grinding and polishing the bottoms of tumblers, wine glasses, decanters and other articles in glass. (Communicated by Astoine Cuttier.)
D'Hondt, Charles	1791	6th July 1866	Looms for weaving.
DE LA GAUTRAYE, AUGUSTUS	2245	31st Aug. 1866	An improved method for the preservation of wood. (Communicated by Monsieur Manne (Anatole).)

Name of Patentee.	Number of Patent.	Date.		Subject-matter of Patent.
DE LA RUE, WARREN	1248	2nd May 18	866	Manufacture of iron and steel.
De la Rue, Warren	1381	15th May 18	866	Treating the residues of pyrites usually called burned ores.
DE LA RUE, WARREN	1383	15th May 18	366	Treating printers' rags.
DE LAIRE, GEORGE	1093	18th April 18	366	Preparation of diphenylamine and analogous substances.
De Laire, George	2686	17th Oct. 18	366	Manufacture of blue coloring matter. (Patented by Charles Adam Girard.)
DE LATOUR, EMILE DE FAGES	2599	9th Oct. 18	366	An improved funnel. (Patented by William Edward Gedge.)
DE MASSY, LOUIS PIERRE [ROBERT.	1130	21st April 18	366	Mode of and apparatus for expressing liquids from pulpy and semi-fluid substances. (Patented by William Edward Newton.)
DE MESNIL, BARON OSCAR -	50	6th Jan. 18	366	Improvements in towing boats on rivers or canals, a part of which improvements is also applicable to the traction of vehicles on rail or tramways or common roads.
DE MILLY, LOUIS ADOLPHE -	1626	15th June 18	866	A new process in the treatment of concrete fatty acids for the manufacture of candles called "stearine candles."
DE MORAT, ALEXANDER JOHN [BAPTIST.	2052	9th Aug. 18	366	An improved telegraphic cable. (Patented by William Robert Lake.)
DE Neviers, Albrecht -	8283	14th Dec. 18	366	An improvement on sledges.
DE RIVIÈRE, JEAN FRANÇOIS [ABRAHAM HENRI.	3180	28th Nov. 18	866	Improvements in impermeable mastic compositions, and in their application for various useful purposes. (Patented by William Clark.)
DE RUSETT, EDWIN WILLIAM	2091	15th Aug. 18	866	Improvements in pumps and in adapting them for propelling vessels and for other purposes.
DE SECQUEVILLE, VISCOUNT [CHARLES.	86	10th Jan. 18	866	Treatment of copper and nickel ores. (Patented by George Chetwynd.)
DE SUBINI, JOSEPH	2518	28th Sept. 18	866	Means of reproducing signs, characters and other marks, in the transmission of messages and signals by electric telegraph apparatus. (Patented by William Clark.)
De Susini, Joseph	2514	28th Sept. 18	866	Electric telegraphs. (Patented by William Clark.)
DE SUSINI, JOSEPH	2716	20th Oct. 18		Electric telegraph apparatus. (Patented by William Clark.)
DE SUSINI, JOSEPH	8178	3rd Dec. 18	866	Apparatus for applying and regulating motive-power. (Patented by William Clark.)
DE TELESCHEFF, NICOLAS -	267	27th Jan. 18	866	Mode of and apparatus for compressing air or aëriform fluids, for the generation of motive-power and other purposes. (Patented by Marc Antoine François Mennons.)
Dr Tivoli, Vital	1294	7th May 18	866	A new form of partial or total baths for man or animals. (Communicated by Major General Angelini.)
Dr Tivoli, Vital	1295	7th May 18	866	A new system of application of pads of india- rubber or other elastic materials. (Communicated by Major General Angelini.)
DE WISSOCQ, PAUL EMILE -	3212	6th Dec. 18	866	Treatment of ores of metals of which the sulphates are soluble in water.
DE WITTE, GERARD	277	29th Jan. 18	866	Construction of breaks for carriages.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
De Zeng, William Stuben -	1874	14th May 1866	An improvement in metallic barrels and other vessels for containing oil, water and other fluids. (Patented by William Edward Newton.)
Deacon, Simeon	1729	28th June 1866	Improved machinery for drilling iron and other metals; also for boring wood, for tapping nuts and screwing bolts.
Deacon, Simeon	2574	6th Oct. 1866	Construction of certain parts of oscillating steam-engines.
DEAKIN, THOMAS	1191	27th April 1866	Apparatus for moulding toothed or other wheels or pullies or portions of circles for casting.
DEAKIN, THOMAS	1676	23rd June 1866	Improvements in overhead railways, and in machinery for moving, turning and weighing goods, wagons, carriages and engines for railway and other purposes.
DEAKIN, WILLIAM	541	21st Feb. 1866	An improved construction of certain parts of metallic chests, strong rooms, safes, deed boxes and such like receptacles.
DEAKIN, WILLIAM	847	3rd March 1866	The application of a certain material, in combination with improved means and appliances, for the manufacture of tubular and hollow cylindrical bodies where great strength and lightness is required.
DEARIN, WILLIAM	901	27th March 1866	Certain improvements in gun barrels, ord- nance, whole or in parts, tubes, shafts and other cylindrical bodies.
DEAKIN, WILLIAM	1221	30th April 1866	Manufacture of hollow projectiles.
DEAKIN, WILLIAM	2006	3rd Aug. 1866	Improved means and appliances for the manufacture of tubular and hollow cylin- drical bodies where great strength and lightness is required.
DEAN, HENRY	90	11th Jan. 1866	"Plotting" and "computing" scales for the use of surveyors and engineers.
DEAN, HENRY	183	20th Jan. 1866	An improvement in pen-holders, consisting of an arrangement for supplying the pen with ink.
DEANE, WILLIAM FRANCIS -	753	13th March 1866	Certain improvements in the treatment and utilization of the residual liquor arising from the production of chlorine gas.
Dearden, Jonathan	201	22nd Jan. 1866	Certain improvements in carding-engines.
Deas, James	2838	lst Nov. 1866	Apparatus relating to railway switches, signals and stop blocks.
DEAVIN, JOHN	2893	7th Nov. 1866	Method of closing and keeping open at any distance doors and gates, in lieu of using springs, straps or other unsightly arrangements for effecting the purpose.
DEAVIN, MARTIN	2893	7th Nov. 1866	Method of closing and keeping open at any distance doors and gates, in lieu of using springs, strap; or other unsightly arrangements for effecting the purpose.
Débauché, Jean Pierre -	2761	26th Oct. 1866	An improved cylinder brush for waxing apartments, and apparatus used therewith.
Dedeyn, François	1801	7th May 1866	Lighting apparatus applicable to lighting cigars and pipes. (Patented by William Clark.)
DEFRIES, COLEMAN	804	31st Jan. 1866	Improved apparatus or means for securing the safety of persons travelling by railway trains.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Defries, Coleman	2801	7th Sept. 1866	An improved float light.
Dégravel, François	1818	11th July 1866	An improved spring suspension for horses' nosebags.
DEGRELLE, JULES	64	9th Jan. 1866	Apparatus for washing or securing and wringing textile fabrics and threads. (Patented by Richard Archibald Brooman.)
DEICKE, HERR DOCTOR -	862	23rd March 1866	Improvements applicable to the treatment of the substances used in the purification of gas. (Returned by William Educard Number)
DELAPIELD, CLARENCE	801	31st Jan. 1866	(Patented by William Edward Newton.) Manufacture of saltpetre and white lead.
Delagarde, Léopold	2211	28th Aug. 1866	Certain improvements in binding books.
DELAUNAY JULES HENRY -	8124	27th Nov. 1866	Means and apparatus for indicating the time and distance travelled by vehicles. (Patented by William Clark.)
Delcambre, Isidore	1496	29th May 1866	Machinery for setting or composing and distributing printing types.
Delebarre, François Fau- [velle.	1265	4th May 1866	An improvement in combs. (Patented by Clinton Edgcumbe Brooman.)
DELESTRE, JOSEPH VICTOR -	1228	1st May 1866	An improved trap for destroying flies and other insects.
DELONG, HENRIETTE	- 2365	14th Sept. 1866	Machinery or apparatus for cutting frets in metal or other substances. (Patented by John Henry Johnson.)
DEMBINSKY, ALEXANDER -	809	31st Jan. 1866	An improved composition for burning in lamps and otherwise, the residuum therefrom being applicable for use in fireworks and for other purposes.
DENANS, JEAN BAPTISTE -	1525	31st May 1866	Construction of water-cocks or hydrants. (Patented by Henry Edward Newton.)
DENIS, GUILLAUME CHARLES	1283	1st May 1866	An improved apparatus for purifying the lighting gas resulting from the distilling of coal.
Denis, Julien	829	20th March 1866	A new and improved gridiron.
Denley, John	2949	10th Nov. 1866	Improvements in chimney tops for the pur- pose of preventing or curing the down draught of smoke.
DENNIS, THOMAS HUNGATE [PRESTON.	1399	17th May 1866	Improvements in greenhouses, and specially relating to the fixings, fittings, ventilation and shading of the same.
Dennis, William	1868	12th May 1866	Casks and taps for drawing liquids there- from.
Dennis, William	2404	19th Sept. 1866	Construction of letter boxes and letter pillars.
Dennis, William	2572	6th Oct. 1866	Improvements in the construction of bottles intended to contain malt liquors and other liquids, and in the mode of stoppering, unstoppering, and drawing off the contents thereof, the said stoppers being also applicable to bottles of the ordinary kind, and other vessels employed to contain liquids, fluids and gases, either separately or in combination.
DENTON, HENRY RICHARD [JOHN.	2834	1st Nov. 1866	Apparatus or machinery for bending chain links.
DENTON, WILLIAM	2752	25th Oct. 1866	Improved signalling apparatus for use on railways.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Depierris, Hippolyte Adeon	742	12th March 1866	Improved means of ascertaining the weight and postage of letters. (Patented by Henri Adrien Bonneville.)
DER POPPENBERG, JOHANN VON.	2580	6th Oct. 1866	Improvements in breech-loading fire-arms, and in cartridges for breech-loading fire-arms.
DER POPPENBERG, JOHANN [VON.]	8382	22nd Dec. 1866	Breech-loading fire-arms.
DERBURGH, GEORGE EDWARD [VAN.]	2470	25th Sept. 1866	Composition and production of artificial stone, cements and other compositions.
DERMID, DANIEL MC	2758	25th Oct, 1866	Machinery or apparatus for pasting wall papers
Derriey, Joseph Jules -	935	2nd April 1866	Machinery for the manufacture of lozenges, wafers, or pastilles of pasty materials.
Despiau, Theodore	82	10th Jan. 1866	Wedges, keys or quoins for securing the rails of railways in their chairs. (Patented by John Clutton.)
Devedeix, Eugène	2926	10th Nov. 1866	An improved manure obtained by an improved process of purifying foul waters. (Patented by Henri Adrien Bonneville.)
Devey, Edward	1043	12th April 1866	Water tuyeres.
Devillainr, Charles	2693	18th Oct. 1866	Certain improvements applied to jacquard looms. (Patented by William Edward Gedge.)
DEVILLIARD, PHILIPPE	1418	18th May 1866	Doors to landau and other carriages similar thereto.
DEWHURST, ROBERT	940	2nd April 1866	Machinery or apparatus to be employed for sizing or dressing yarns or threads.
Dewies, August Conrad -	2909	8th Nov. 1866	Improvements in the manufacture of coke and the small coke called breezes, and in the manufacture of coal gas. (Patented by George Shaw.)
Deymann, Henry	384	8th Feb. 1866	An improved rotary steam-engine.
DICK, CHARLES JAMES ADOL- [PHUS.	1924	24th July 1866	An improved method of and apparatus for preventing incrustation in steam-boilers. (Patented by Edward Primerose Howard Vaughan.)
Dick, David	2590	.8th Oct. 1866	Atmospheric engines. (Patented by William Edward Newton.)
Dickins, Thomas	3122	27th Nov. 1866	Furnaces and steam-boilers.
Dickinson, John the younger	1084	17th April 1866	Cocks or taps for high pressure hot and cold water, and for kitchen ranges.
Dickinson, John Charles -	22 25	29th Aug. 1866	An improved dipping mixture for sheep and lambs.
DICKS, WILLIAM	817	20th March 1866	An improved ratchet brace, the improvements contained therein being applicable also to lifting jacks.
Dietrich, Charles Ferdi-	1897	13th July 1866	Apparatus for compressing air by means of water.
DILLON, ROBERT	2726	22nd Oct. 1866	An improved fastening for baling bands. (Patented by Alfred Vincent Newton.)
DIMICK, HORACE EDWARD -	789	16th March 1866	Breech loading fire-arms. (Patented by John Henry Johnson.)
Dimock, Ira	2017	4th Aug. 1866	Sewing-machines. (Communicated by George Lynden Jencks.)
DIMOCK, IRA	2436	22nd Sept. 1866	Improvements in brushes and in their manufacture. (Communicated by "The Florence Manu-

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Dines, Henry	3244	8th Dec. 1866	Breech-loading fire-arms.
DINZEY, PETER	502	16th Feb. 1866	Rudders and steering apparatus. (Patented by Adolphus Henry Linnington.)
DINZEY, PETER	1624	14th June 1866	Anchors. (Patented by Adolphus Henry Linnington.)
Dion, Charles	1376	14th May 1866	Self-acting fire-alarms. (Patented by John Henry Johnson.)
DIX, ALEXANDER MILLS -	2526	1st Oct. 1866	Refrigerators.
Dixcee, Thomas	1194	27th April 1866	Apparatus used in moulding clay and other plastic material into bricks and other articles.
Dixon, Charles William -	3017	17th Nov. 1866	Slide valves.
Dixon, George	1609	13th June 1866	Thrashing machines.
Dixon, George	2715	20th Oct. 1866	Fringes, tassels, and such like upholsterers' trimmings.
Dixon, Thomas	2408	19th Sept. 1866	An improved arrangement of steam-boiler and furnace.
Dixon, William	900	27th March 1866	Apparatus for turning over the leaves of music.
Dixon, William Allen -	845	22nd March 1866	Pyroxilin or gun cloth charges for all kinds of fire-arms.
Dodd, John	2815	31st Oct. 1866	Self-acting mules.
Doderet, Jules	2251	1st Sept. 1866	An improved needle case or holder. (Patented by Edmond Vincent Billiotte.)
Dodge, George Pomeroy -	1075	16th April 1866	Cues, rests and other implements used in playing the game of billiards, bagatelle and other similar games.
Dodge, George Pomeroy -	2555	4th Oct. 1866	An improved mode of and apparatus for folding and shaping belts or bands of india-rubber (or compound consisting partly of india-rubber) and woven fabric.
Dodge, James	562	23rd Feb. 1866	Apparatus for tempering saws and other articles capable of being tempered between two heated surfaces.
Dodge, James	2385	17th Sept. 1866	Improvements in machinery for grinding, stripping and cutting file blanks, part of which improvements is also applicable to grinding and polishing chisels, plane irons and other articles.
DŒRING, FREDERICK BERNARD	2922	9th Nov. 1866	Improvements in engines for boring rock and other minerals, and in frames or stands for boring engines.
Dollier, Jacques Eugene -	1688	25th June 1866	Locks or fastenings. (Patented by Clinton Edgcumbe Brooman.)
Domeier, Albert	1321	8th May 1866	Apparatus for supporting and extending the skirts of ladies' dresses.
DONALD, JOHN CAMERON MAC	3222	6th Dec. 1866	Improvements in machinery for printing and cutting into sheets rolls of paper, and for collecting sheets so cut, also in the manu- facture of stereotype printing surfaces.
Donaldson, Robert	679	6th March 1866	Means or apparatus for signalling on rail- way trains.
Donbavand, William	2628	11th Oct. 1866	Looms for weaving.
Donbavand, William	2918	9th Nov. 1866	Looms for weaving.
Donisthorpe, Frederick [Bruce.	2936	10th Nov. 1866	Finishing parts of woollen garments.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Donisthorpe, George [Edmund.	568	23rd Feb. 1866	Machinery for combing wool and other fibre.
Donisthorpe, Grorge [Edmund.	708	8th March 1866	Machinery for cutting coal.
Donisthorpe, George [Edmund.	1186	21st April 1866	Improvements in getting coal and other materials, and in machinery employed for that purpose.
Donisthorpe, George [Edmund.	1138	21st April 1866	Machinery for washing wool, hair and other fibre.
Donisthorpe, George [Edmund.	2557	4th Oct. 1866	Machinery for washing wool, hair and other fibre.
Donnet, Barthélemy	2051	9th Aug. 1866	A moveable shuttle distributor applicable to fringe machinery, and also for certain useful improvements in fringe machines.
Dooley, John	ıı	lst Jan. 1866	Manufacture of kamptulicon and similar fabrics.
Doolittle, James Benjamin	997	7th April 1866	Revolving fire-arms. (Patented by Edward Thomas Hughes.)
Doppeld, Jean Nicolas -	3198	5th Dec. 1866	Fastenings of covers for powder flasks or cases used in naval gunnery.
Dore, William	280	24th Jan. 1866	Certain improvements in machinery or apparatus to be employed in preparing cotton and other fibrous substances for spinning.
Dormoy, Pierre Adolphe -	2866	5th Nov. 1866	Improvements in puddling and in apparatus employed therein. (Patented by Clinton Edgcumbe Brooman.)
Dorning, William John -	1515	31st May 1866	Certain improvements in the manufacture of "keys," "spanners," "wrenches," "cotters," "nuts" and other articles, and in the apparatus employed therefor.
Dorning, William John -	1516	31st May 1866	Certain improvements in hydraulic pumps and in valves connected therewith, and also in the method of driving or actuating such pumps.
Dorsett, Edward	8349	20th Dec. 1866	Improved arrangements and apparatus for removing or transferring tar or similar materials from one place or receptacle to another.
Doughty, Charles	297	30th Jan. 1866	Apparatus for distilling the grease of cotton seed oil and other fatty matters.
Doughty, Charles	1778	4th July 1866	Apparatus for distilling the grease of cotton seed oil and other fatty matters.
Douglas, Henry	1264	4th May 1866	Improvements in making cop tubes and in apparatus therefor.
Douglas, James	1264	4th May 1866	Improvements in making cop tubes and in apparatus therefor.
Douglas, Sholto	1451	23rd May 1866	Improvements in motive-power engines, and in the mode of applying water, steam, compressed air and other liquids and gases, for driving the same.
Dow, James Daly	621	lst March 1866	Steam-boiler furnaces.
Dowell, Daniel Mc	681	6th March 1866	Improved apparatus for cleaning the tubes of steam-boilers. (Patented by Samuel Soutar.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DOWELL, DANIEL Mc	2387	17th Sept. 1866	Improved apparatus for cleaning the tubes of steam-boilers.
Dowing, George Otis	997	7th April 1866	Revolving fire-arms. (Patented by Edward Thomas Hughes.)
Drake, Samuel	451	13th Feb. 1866	Combining together surfaces of wood.
DRANE, THOMAS	269	27th Jan. 1866	Improvements in the manufacture of coke and in the apparatus connected therewith.
DREVETON, EMILE	490	16th Feb. 1866	Improvements in preparing champagne and sparkling wines, and in the apparatus to be employed therein.
DREW, REUBEN WHITEHOUSE	3237	8th Dec. 1866	An improved machine for pegging boots and shoes. (Patented by George Haseltine.)
DROMTRA, FRIEDRICH WILL [HELM CONSTANTIN		27th Sept. 1866	Means of securing pocket-books and other portable articles on the person. (Communicated by Theodore Neuscheller.)
Droop, John Frederick	2724	22nd Oct. 1866	Propelling and steering ships and vessels. (Patented by John Henry Johnson.)
DRUCKER, EDWARD -	1860	17th July 1866	Fastenings for corsets, stays and other articles of dress. (Communicated by William Sparkes Thompson.)
DRUCKER, EDWARD -	8004	16th Nov. 1866	An improved combined punching and eyelet machine. (Communicated by William Sparkes Thompson.)
Du Boys, Ernest Marie	518	20th Feb. 1866	Apparatus for measuring and registering the flow of water or other liquids.
Du Motay, Cyprien Marie [Tessié		10th Jan. 1866	Bleaching vegetable and animal fibres and tissues. (Patented by Richard Archibald Brooman.)
Du Motay, Cyprien Marie [Tessié		10th Jan. 1866	An improved method of producing oxygen. (Patented by Richard Archibald Brooman.)
Du Motay, Cyprien Marie [Tessié	•	28th June 1866	Obtaining alkaline permanganates. (Patented by Clinton Edgcumbe Brooman.)
Du Motay, Cyprien Marie [Tessié		3rd Sept. 1866	A new method of bleaching fibres and fabrics of vegetable origin. (Patented by Clinton Edgcumbe Brooman.)
Du Rieux, Pierre -	2602	9th Oct. 1866	Filtering presses for expressing the liquid parts and retaining the solid parts of any semi-liquid substances. (Patented by Edward Thomas Hughes.)
Du Rieux, Pierre	8146	30th Nov. 1866	A new or improved mode of saccharatifica- tion of sugary substances. (Patented by Edward Thomas Hughes.)
DUBBER, JOHN FREDERIC	3429	29th Dec. 1866	Fastenings for pocket-books, diaries, memorandum-books and other similar articles. (Patented by George Haseltine.)
Dubois, Ernest	2531	2nd Oct. 1866	An improved manometrical sounding apparatus. (Patented by Frederick Tolhausen.)
Dubreuil, Jean Baptiste	2187	20th Aug. 1866	Obtaining motive-power. (Patented by John Henry Johnson.)
DUBREUIL, JUSTIN	8448	31st Dec. 1866	Improved means of and apparatus for adver- tising. (Patented by John Henry Johnson.)
Dubreux, Louis Adolphe .	1879	19th July 1866	A new fastening for letter envelopes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DUBUISSON, CADET PIERRE -	305	31st Jan. 1866	Manufacture of wrought-iron tubes applicable to different purposes. (Patented by Henri Adrien Bonneville.)
Duckett, James	2484	25th Sept. 1866	The manufacture of scouring stones commonly called soft or sandstones, used for the scouring and cleansing of stone floors, steps or other similar parts of domestic dwellings or other edifices or similar places.
DUCRUX, CLAUDE	3418	29th Dec. 1866	An improved safety attachment to carriages. (Patented by Alfred Vincent Newton.)
Dudgeon, Richard	699	7th March 1866	Apparatus used in expanding boiler-tubes. (Patented by George Tomlinson Bousfield.)
Dudgeon, William	2608	9th Oct. 1866	Improvements in constructing ships or vessels moved by twin propellers, and in steam-engines for giving motion to the same.
Dupp, David	1488	28th May 1866	Improvements in gas regulators applicable to burners and meters.
Dupour, Charles Alphonse	1668	22nd June 1866	Metallic packing for stuffing-boxes and other obturators.
Dufour, Louis François [Désiré.	214	23rd Jan. 1866	An improved generator for steam-engines. (Patented by William Edward Gedge.)
Dufrené, Hector Auguste -	112	13th Jan. 1866	An improved machine for pressing bricks. (Communicated by Monsieur Louis Thelohan.)
Dufrené, Hector Auguste -	312	31st Jan. 1866	An improved hydraulic steam hammer. (Communicated by Monsieur Justin Thevenet.)
Dufrené, Hector Auguste -	615	28th Feb. 1866	Improvements and new applications in the manufacture of beer and alcoholic liquids. (Communicated by Monsieur Charles Tellier.)
Dufrené, Hector Auguste -	1586	11th June 1866	Improved apparatus for decorticating rice and other grain. (Communicated by Joseph Perre.)
Dufrené, Hector Auguste -	2204	27th Aug. 1866	Improvements in the manufacture of beer and other alcoholic liquids, and in the apparatus employed therefor. (Communicated by Monsieur Charles Tellier.)
Dufrené, Hector Auguste -	8170	3rd Dec. 1866	Fire-places. (Communicated by Monsieur Yves Leper-driel.)
Dufrené, Hector Auguste -	3386	24th Dec. 1866	Certain improvements in the manufacture of the extract of madder. (Communicated by Mr. Jules Pernod.)
Dümler, Gabriel	8439	31st Dec. 1866	Improvements in rails and in part of the permanent way of railways. (Patented by William Loeder.)
Dummere, Stephen	145	16th Jan. 1860	Mattresses and palliasses and seating for use in nurseries and hospitals, and by invalids, and for omnibus or any other seating exposed to wet by weather or otherwise.
DUMONTIER, CHARLES ISAAC -	2477	26th Sept. 1866	Certain improvements in looms for weaving gauzes and other fancy goods. (Patented by William Edward Gedge.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Dumuis, Desiré Alfred -	1552	5th June 1866	Improvements in water-closets, urinals, lavatories and other receivers, and also in taps for supplying liquid to the same.
Duncan, Robert	8210	6th Dec. 1866	Arrangements for applying auxiliary power to sailing ships.
Dunlop, John Macmillan -	1481	21st May 1866	Machinery for cutting india-rubber.
Dunlop, John Macmillan -	3012	16th Nov. 1866	Machinery for cutting india-rubber.
Dunn, John	2382	17th Sept. 1866	Spinning wool and other fibrous materials. (Communicated by Ferdinand Spineus.)
Dunn, Noah	2372	15th Sept. 1866	Certain improvements in water tuyeres.
Dunn, Thomas	1677	23rd June 1866	Machinery for turning, shaping and cutting metal.
Dunn, William	954	4th April 1856	Certain improvements in the construction of safes and other similar depositories.
Dupuy, Jean Antoine Alex- [andre.	1165	25th April 1866	An improved construction of spring bed or mattress, and apparatus connected therewith. (Patented by William Edward Gedge.)
Durand, François	278	27th Jan. 1866	Differential screw apparatus. (Patented by Richard Archibald Broomen.
Durand, François -	2386	17th Sept. 1866	Machinery or apparatus for the manufacture of bricks, tiles and other similar articles. (Patented by John Henry Johnson.)
Durand, Joseph Jean Marie	1470	26th May 1866	Gas pyrometers, which may also be employed as thermometers. (Patented by Baldwin Fulford Weatherdon.)
Durand, Joseph Jean Marie	2068	11th Aug. 1866	Thermometers and pyrometers. (Patented by Baldwin Fulford Weatherdon.)
Durfee, Zoheth Sherman -	1575	8th June 1866	Travelling bags, valises and trunks. (Patented by Charles Denton Abel.)
Durfer, Zoheth Sherman -	2296	7th Sept. 1866	Slide valves for steam-engines. (Patented by Charles Denton Abel.)
DUROUX, EMILE	1758	2nd July 1866	Apparatus for applying heat to certain parts of the human body. (Patented by Henri Adrien Bonneville.)
Dussap, Blaise	2904	7th Nov. 1866	An improved mode of and apparatus for cleaning the exterior of houses, public buildings, objects of art, ornamental surfaces, walls, carriages and other articles or things. (Patented by William Edward Newton.)
DUTERNE, VICTOR	715	9th March 1866	1
DUTPIELD, THOMAS	248	25th Jan. 1866	Pianofortes.
Dyson, George	249	25th Jan. 1866	An improved means of splicing or joining straps or driving belts for machinery.
Dyson, George	2390	17th Sept. 1866	Improvements in the smelting of iron and in furnaces therefor.
Dyson, George	2433	21st Sept. 1866	Improvements in drying and ventilating corn and other agricultural produce, and in apparatus therefor.
Dyson, George Walter -	2713	20th Oct. 1866	An improvement in the manufacture o

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.			
E.						
EADES, CHARLES	1098	19th April 1866	Improvements in collecting or condensing and utilizing the fumes given off by furnaces used in the manufacture of copper and in other metallurgical operations, which improvements may also be applied to the collecting or condensing of fumes from other sources.			
EADES, WILLIAM	1672	22nd June 1866	Apparatus for raising weights.			
EADES, WILLIAM	2697	18th Oct. 1866	Improved bearings for shafts and axles.			
EADES, WILLIAM THOMAS -	1672	22nd June 1866	Apparatus for raising weights.			
EADES, WILLIAM THOMAS -	2697	18th Oct. 1866	Improved bearings for shafts and axles.			
EAMES, CHARLES JAMES -	1805	9th July 1866	An improved compound for coating ships' bottoms and other surfaces. (Patented by Alfred Vincent Newton.)			
EAMES, CHARLES JAMES -	8855	20th Dec. 1866	An improved compound for coating ships' bottoms and other surfaces. (Patented by Alfred Vincent Newton.)			
Earle, Oscar Theodore -	2469	25th Sept. 1866	Steam pumps. (Patented by William Robert Lake.)			
Earp, Thomas	8028	19th Nov. 1866	Improvements in or applicable to safety cabs and like vehicles.			
Eassie, William	99	12th Jan. 1866	Pile shoes.			
East, Josiah	1519	31st May 1866	Sawing machinery.			
Eastwood, James	1450	23rd May 1866	Improvements in the mode or method of applying heat in the drying and calender- ing of yarns, textile fabrics and other materials, and in the heating and evapo- rating of liquids, and in the apparatus employed therein.			
Eckel, John Jordan	672	5th March 1866	An improved process of bleaching. (Patented by Alfred Vincent Newton.)			
Eden, Frederick Morton -	604	27th Feb. 1866	An improved apparatus for holding and driving cutting and other tools.			
EDGE, ROBERT	2702	19th Oct. 1866	Machinery for spinning and doubling.			
EDGEWORTH, DAVID REID -	1202	28th April 1866	A new surveying instrument.			
Edmond, William	1178	26th April 1866	Furnaces and apparatus for separating heated gases, fumes or vapours from each other and from solid or liquid bodies.			
Edmonds, John Kemp	429	10th Feb. 1866	Apparatus for heating pipes by hot water.			
Edmondson, John Breby -	2086	15th Aug. 1866	Presses for printing the dates or other parti- culars on railway and other tickets.			
Edwards, George Henry -	2417	20th Sept. 1866	Breech-loading fire-arms.			
Edwards, John	2160	23rd Aug. 1866	Permanent way of railways and signals for working the same.			
Edwards, John	2286	6th Sept. 1866	Permanent way of railways.			
EDWARDS, OSBORNE CADWAL- [LADER.	2846	3rd Nov. 1866	Machinery for cleansing or washing casks or barrels.			
Edwards, Richard John -	2911	8th Nov. 1866	Improvements in the manufacture of emery and glass cloths, and in dressing and pre- paring woven fabrics for the same, and also in apparatus for cutting such cloths.			

			
Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent,
Edwards, Thomas, the younger	586	26th Feb. 1866	Apparatus for registering the number of passengers entering omnibuses and other carriages, which apparatus is also applicable to registering the number of persons passing through barriers of theatres, ferry gates, workshops and other places.
Edwards, William Young -	1094	18th April 1866	Axles and axle boxes for carts, carriages and other conveyances running upon wheels.
Edwards, William Young -	1095	18th April 1866	F.yeletting machines. (Communicated by Charles Howard Crosby.)
Egar, William	2507	28th Sept. 1866	An improved fire-escape.
Elder, John	759	14th March 1866	Improvements relating to the boilers and engines of steam ships.
Elder, John	1802	9th July 1866	Marine steam-engines.
ELEY, WILLIAM THOMAS -	880	24th March 1866	Central fire breech-loading cartridges.
ELEY, WILLIAM THOMAS -	2232	29th Aug. 1866	Machinery employed in the manufacture of "Boxer" or other central fire cartridge cases.
Elièze, otherwise Lagrèze [Guillaume.	2946	10th Nov. 1866	Breech-loading fire-arms and cartridges. (Patented by William Clark.)
ELLIOT, EDWIN DEMAS	842	21st March 1866	Treating animal charcoal used in refining sugar.
ELLIOT, WILLIAM HERVEY -	640	2nd March 1866	Improved apparatus for loading waggons with hay, straw and other like products. (Patented by Alfred Vincent Newton.)
Elliott, George Augustus -	1392	16th May 1866	Improved modes of and apparatus for open- ing and closing railway carriage and other windows.
ELLIOTT, HOSEA	2427	21st Sept. 1866	Picker motions for looms. (Patented by William Clark.)
Ellis, Edward	1462	25th May 1866	Machinery or apparatus for the manufacture of metal rods, bars and tubes, together with a new or improved motive-power for communicating motion to the same.
Ellis, George Henry	· 1899	21st July 1866	A new or improved mode of constructing a motive-power wheel, whereby to obtain permanent motion, by the application of compressed air or any other elastic fluid.
Ellis, Joseph	1735	29th June 1866	Carriage windows and other sliding frames.
Ellis, Peter	1845	13th July 1866	An improved lift, hoist or mechanical elevator, adapted for hotels, warehouses, railway stations and other places, and intended to facilitate and render easy the ascent of persons and goods.
Ellison, Edward	976	5th April 1866	An improved method or means to be employed for preventing and curing disease in cattle.
Ellsworth, Oliver	2728	23rd Oct. 1866	Machines for making paper. (Patented by John Henry Johnson.)
Elmer, William, M.D	2759	25th Oct. 1866	Improvements in the manufacture of gases for the purpose of producing heat, and the application thereof to metallurgical operations. (Patented by George Tomlinson Bousfield.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Elsberg, Louis	1971	31st July 1866	Manufacturing of fuel from peat and such like vegetable matter. (Patented by George Tomlinson Bousfield.)
ELVERSON, JABEZ	2063	11th Aug. 1866	Certain improvements in stamps for producing impressions, which are also applicable to cylinder printing. (Patented by James Collins and Andrew Dwight Campbell.)
ELY, ALFRED BREWSTER -	3430	29th Dec. 1866	Nautical logs. (Communicated by Truman Hotchkiss.)
EMERY, GEORGE TOWLE -	2673	16th Oct. 1866	Construction of steam-boilers. (Patented by Alfred Vincent Newton.)
Емме, Јони	1460	25th May 1866	An improved cartridge extractor for breech- loading guns.
Ensley, John Israel	2067	11th Aug. 1866	An improved apparatus for manufacturing illuminating gas and producing bone black and other valuable residuum.
Ensom, Vernon Francis -	824	20th March 1866	Apparatus for scouring, washing, bleaching, dyeing and drying fibrous materials in the raw and manufactured state.
Ericsson, John	436	12th Feb. 1866	An improved construction of port stopper applicable to turret ships and land and floating batteries. (Patented by Alfred Vincent Newton.)
ERICSSON, JOHN	1996	2nd Aug. 1866	Construction of ordnance. (Patented by William Edward Newton.)
ERMEN, GODFREY ANTHONY -	1081	11th April 1866	Certain improvements in machinery or apparatus for preparing and spinning cotton and other fibrous substances.
Erskine, James	868	23rd March 1866	Apparatus for filling cartridges for breech- loading guns.
Erskine, James	1484	28th May 1866	Apparatus for turning over or closing the ends of cartridges.
Erskine, James	1585	9th June 1866	Breech-loading guns.
Erskine, James	2994	15th Nov. 1866	Construction of steam-engines.
Eshleman, Jacob Albert -	1807	10th July 1866	An improved neck-tie or scarf retainer. (Patented by George Davies.)
Essex, Henry	1881	9th May 1866	An improvement in sewing needles.
Evans, Daniel	1106	19th April 1866	Manufacture of articles made of plates, sheets or bars of wrought iron or of steel.
Evans, David	2638	12th Oct. 1866	Certain improvements in the manner of papering needles, and in wrappers or envelopes for the same.
Evans, Isaac	8020	17th Nov. 1866	Braces.
Evans, Isaac Mark	2684	11th Oct. 1866	An improved apparatus for preventing explosions in steam-boilers.
Evans, James William -	229	24th Jan. 1866	Construction of metallic cases or shells for the reception of spiral springs and elastic substances, for railway carriages and waggons and other vehicles.
Evans, James William -	1459	25th May 1866	Machinery for the manufacture of coiled springs packed with wool or other fibrous materials.
Evans, Ormrod Coffeen -	772	15th March 1866	Digging machinery.
EVELYN, GEORGE PALMER -	636	2nd March 1866	Construction of projectiles for ordnance and fire-arms.

Name of Patentoe.	Number of Patent.	Date.	Subject-matter of Patent.
EVELYN, GEORGE PALMER -	1509	30th May 1866	A new or improved apparatus for propelling boats and vessels.
EVEREST, HIRAM BOND	827	20th March 1866	Process of and apparatus for distilling petroleum and other mineral oils. (Patented by William Edward Newton.)
Evoy, Charles Ambrose Mc	879	7th Feb. 1866	Torpedoes or submarine explosive instru- ments.
Evoy, Charles Ambrose Mc	1555	5th June 1866	Improvements in shells and in fuses used with shells.
Evoy, Charles Ambrose Mc	2035	7th Aug. 1866	Torpedoes or submarine explosive instruments.
Ewing, Matthew Patrick -	827	20th March 1866	Process of and apparatus for distilling petroleum and other mineral oils. (Patented by William Edward Newton.)
Exall, William	8436	31st Dec. 1866	Machinery to cut grass and corn, and also to gather and bind the same into sheaves.
Excelsion Nail Company - (Incorporated.)	2144	21st Aug. 1866	Machinery for making nails. (Patented by William Edward Newton.)

F.

Faber, Eberhard	1880	19th July	1866	Improvements in sewing-machines and in the devices used to impart motion to the same or to other machines. (Patented by William Clark.)
FAILLE, LUCIEN	119	13th Jan.	1866	An improvement in spring tops. (Patented by Richard Archibald Brooman.)
Fair, George Washington -	2002	2nd Aug.	1866	A smoke-consuming heater.
Fairbairn, Andrew	2807	30th Oct.	1866	An improved mode of covering metal rollers used in the manufacture of flax, hemp, jute, silk and other fibrous substances, with leather.
FAIRBANK, WILLIAM	1709	27th June	1866	Improved means or apparatus for generating and reserving steam.
FAIRBURN, HENRY GEORGE	17 82	5th July	1866	An improved process for forming and com- bining small coal or coal dust into lumps, blocks or otherwise, to be employed for the purposes of fuel.
Falatieu, Joseph Jules -	1780	5th July	1866	Manufacturing by the aid of a special arrangement of cylinders or rollers, a novel sort of bar or rod iron suitable for making horseshoe nails. (Patented by William Edward Gedge.)
Fales, David	2027	6th Aug.	1866	Steps or foot bearings for spindles. (Patented by William Robert Lake.)
Fales, Levi Spaulding -	606	27th Feb.	1866	An improved process of and apparatus for distilling petroleum and other liquid substances. (Patented by William Edward Newton.)

Name of Patentee.	Number of	Date.	Subject-matter of Patent.
Name of Pacettons	Patent.	Dave.	duljete matter of Fateric
Fales, Levi Spaulding -	616	28th Feb. 1866	Process of and apparatus for the distillation of tar and other substances. (Patented by William Edward Newton.)
Fallows, George	1489	29th May 1866	An improved method of extracting car- tridges and cartridge cases from fire-arms.
FARCOT, MARIE JOSEPH DENIS	1206	28th April 1866	Engines for obtaining rotary motion by means of steam, gas or other fluids. (Patented by Henry Edward Newton.)
FARRY, BARNARD WILLIAM -	425	10th Feb. 1866	Steam-engines.
FARGON, LOUIS ALEXANDER -	3136	28th Nov. 1866	Forming the joints of iron and other tubes or pipes.
FABLAND, COREY MC	1478	26th May 1866	An improved album for exhibiting photo- graphs and other pictures. (Communicated by John Spooner.)
FARLAND, CORRY Mc	1549	4th June 1866	Machinery for cutting corks and bungs. (Communicated by Charles Harris.)
FARLAND, COREY MC	2197	25th Aug. 1866	An improved friction clutch for starting and stopping machinery. (Communicated by James Brown.)
FARMAR, EDWIN	1551	5th June 1866	Apparatus to be used in training or growing hops.
FARMER, BENJAMIN	280	29th Jan. 1866	Machinery or apparatus for washing, wring- ing and mangling textile and felted fabrics of all descriptions, also applicable to the washing of ores, gold and silver dust and other metals, flocks, hair, tow and other similar materials.
FARMER, CHARLES WILLIAM -	1825	11th July 1866	Certain improvements in connectors for uniting wires, bands, ropes or electric tele- graph cables, or other like ropes or cables composed partly of wire and partly of hemp or other desirable compound mate- rial.
FARMER, JAMES	2207	27th Aug. 1866	Improvements in apparatus for regulating the flow of steam into steam-engines, by what are commonly called expansion cut- off valves.
Farquearson, Duncan	2156	22nd Aug. 1866	An improved process for bleaching with the aid of hydrostatic and pneumatic pressure conjointly or separately, wood, straw and other fibrous material for the manufacture of paper pulp, and for bleaching flax, hemp, thread, yarns, felts, cloths and other fibrous and textile materials. (Patented by George Haseltine.)
FARR, ENOCH	2276	4th Sept. 1866	Pianofortes.
Fassman, Henry	320	1st Feb. 1866	Connecting or fastening the ends of iron or other metal bands surrounding bales of cotton, wool and other dry goods. (Patented by Henry Charles Lucy.)
FAULENER, CHARLES	1976	lst Aug. 1866	
FAULENEE, SAMUEL	2794	29th Oct. 1866	Improvements in carding-engines and in apparatus for grinding the rollers or cylinders thereof.
Faure, Annet Amable -	2262	3rd Sept. 1866	

Name of Patentee.	Number of Patent.	Date.		Subject-matter of Patent.
FAWCETT, THOMAS CONSTAN-	18	2nd Jan.	1866	Improved means or apparatus for liftin and lowering weights.
Feasey, George	1251	2nd May	1866	An improved preparation or composition for removing and preventing incrustation is steam-boilers.
FEATHER, EDMUND	160	17th Jan.	1866	Improved means of lubricating the spindle of cap and cup frames employed in spir ning and twisting fibrous substances, a plicable also for lubricating other frictions surfaces of machinery.
FEATHER, THOMAS	160	17th Jan.	1866	Improved means of lubricating the spindle of cap and cup frames employed in spin ning and twisting fibrous substances, a plicable also for lubricating other friction surfaces of machinery.
Fehleisen, Ernest	1841	10th May	1866	An improved explosive compound. (Patented by Johann Heinrich Augu Bleckmann.)
Frhleisen, Wilhelm	1841	10th May	1866	An improved explosive compound. (Patented by Johann Heinrich Augus Bleckmann.)
Fell, Ambrose George -	1708	26th June	1866	Manufacture of white lead. (Patented by William Robert Lake.)
FELL, AMBROSE GEORGE -	3133	28th Nov.	1866	Manufacture of white lead. (Patented by William Robert Lake.)
Fell, John Barraclough -	2174	24th Aug.	1866	Improvements in or applicable to locomotive engines and carriages, adapted more paticularly for use on railways having stee inclines, but which may be also used uporailways of ordinary gradients.
FELL, THOMAS MARA	1708	26th June	1866	Manufacture of white lead. (Patented by William Robert Lake.)
FELL, THOMAS MARA	3133	28th Nov.	1866	Manufacture of white lead. (Patented by William Robert Lake.)
FELT, JOHN GILLINGHAM -	397	8th Feb.	1866	Manufacture of stiffening for the heels boots and shoes. (Patented by Nathaniel Henry Felt.)
FELT, NATHANIEL HENRY -	397	8th Feb.	1866	Manufacture of stiffenings for the heels boots and shoes. (Communicated by John Gillingham Felt
FENBY, JOSEPH BEVERLEY -	454	13th Feb.	1866	Pumps for raising and forcing liquids.
FENBY, JOSEPH BEVERLEY -	1545	4th June	1866	Locks and latches.
Ferguson, John	2825	31st Oct.	1866	An improved process for recovering and u lizing certain waste metallic products.
Ferrabee, James	2562	4th Oct.		Improved machinery for preparing wool as other fibrous substances.
FERRARIO, NATALE	1893	16th May	1866	Improved means and apparatus for pr serving and saving life and property sea in case of shipwreck.
FEYH, HENRY	2673	16th Oct.	1866	Construction of steam-boilers. (Patented by Alfred Vincent Newton.)
FIDLER, EDWARD	1299	7th May	1866	Improved machinery for holding, cutting getting and drilling coal or other mineral
FIELD, ARTHUR	2728	23rd Oct.	1866	Machinery or apparatus employed in the manufacture of candles.
FIELD, EDWARD	811	19th Marc	h 1866	Mode of and apparatus for diffusing moistu and heat through vegetable or oth matters.

16] AND API	DIOANT	5 FOR PAIENI	S OF INVENTION.
Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
FIELD, EDWARD	1260	4th May 1866	Attaching buttons, clasps, hooks and eyes or other similar fastenings to leather or other partially elastic or yielding materials.
FIELD, EDWARD	1694	25th June 1866	Apparatus for generating steam or heating liquids.
FIELD, EDWARD	1788	6th July 1866	Improvements in drawing or exhausting and forcing fluids, and in instruments or apparatus applicable to such purposes.
FIELD, FREDERICK	1888	16th May 1866	Manufacture of candles.
Field, John	155	17th Jan. 1866	Machinery or apparatus for manufacturing and pressing fire-bricks, which machinery or apparatus is also applicable to the manufacture and pressing of common clay and other bricks.
FIELD, JOHN KINGSFORD -	1420	19th May 1866	Improved adaptable ends for candles.
Field, John Lyon	1420	19th May 1866	Improved adaptable ends for candles.
Field, Joshua	3148	29th Nov. 1866	Improvements in and connected with steam- engines.
FIELD, LORENZO	1786	6th July 1866	Photographic printing frames.
FILLINGHAM, SAM	751	13th March 1866	Improvements in bat frames used in the manufacture of felted cloths.
Finch, Gerard Brown	8342	20th Dec. 1866	An improvement in the feeding apparatus in cotton gins. (Communicated by Peter Taylor.)
Finet, Theophile Joseph .	851	22nd March 1866	Apparatus for propelling railway carriages upon inclines. (Patented by Henry Edward Newton.)
FINLAY, THOMAS	408	9th Feb. 1866	Spinning and drawing rollers. (Patented by John Henry Johnson.)
FIRMIN, GEORGE JORDAN -	2778	26th Oct. 1866	Sugar refining.
FIRTH, EDWARD	3202	5th Dec. 1866	Railway crossings.
Firth, James	8202	5th Dec. 1866	Railway crossings.
FISHER, BENJAMIN SAMUEL -	389	8th Feb. 1866	An improved substitute for emery to be used for cutting, grinding and polishing metal, marble, glass, precious stones and other hard substances.
Fisher, Clare	1985	lst Aug. 1866	An improved method of promoting com- bustion of fuel in steam-boiler furnaces and other furnaces. (Patented by William Edward Newton.)
FISHER, HENRY	2546	3rd Oct. 1866	Boilers and boiler furnaces.
FISHER, JOHN	2764	26th Oct. 1866	Making moulds for casting metals. (Communicated by Hadji Jappa.)
FISHER, NICHOLAS	567	23rd Feb. 1866	Machinery for cultivating land.
FITTON, EDWARD GERRARD -	1687	25th June 1866	Machinery for preparing and spinning flax, tow, jute and other fibrous substances.
FITTON, EDWARD GERRARD -	2462	25th Sept. 1866	Machinery for preparing and spinning flax tow, jute and other fibrous materials.
FITZHENRY, EDWARD	2325	10th Sept. 1866	A new and useful machine which may be employed for scouring, sleeking or setting hides or leather.
Flach, Clemens Flemming -	8449	31st Dec. 1866	Extracting silver from lead.
FLAMM, PIERRE	2170	23rd Aug. 1866	An improved saw specially adapted for forest use, and improved saw teeth applicable to saws generally.
			(Patented by William Edward Gedge.)

Name of Patentos.	Number of Patent.	Date.	Subject-matter of Patent.
FLEET, THOMAS	2094	15th Aug. 1866	Certain improvements in self-acting fixed and repeating portable means for signal-ling on railways.
FLEETWOOD, DANIEL JOSEPH	1405	17th May 1866	Machinery for raising and stamping metals.
FLEETWOOD, DANIEL JOSEPH	2438	22nd Sept. 1866	Manufacture of dies or moulds used for stamping, pressing or moulding metal, glass or other material capable of being so treated.
FLEMING, ABEL	399	9th Feb. 1866	Improvements in the construction of fur- naces and kilns employed in the manu- facture of glass, and in the heating and burning of articles of glass and earthen- ware.
FLEMING, ABEL	1 467	25th May 1866	Improved means of and apparatus for warming and keeping warm articles of food, particularly infants' food.
FLEMING, WILLIAM	712	9th March 1866	Improved arrangements for protecting hatch- ways in ships and vessels.
FLETCHER, ADDISON CALVIN -	728	9th March 1866	Paddle-wheels for propelling vessels. (Patented by William Edward Newton.)
FLETCHER, Addison Calvin -	1129	21st April 1866	Grates for furnaces and fire places. (Patented by Alfred Vincent Newton.)
Fletcher, James	1325	9th May 1866	Machines for cutting, rolling and shearing bars or beams of metal for making rivets and for other purposes.
Fletcher, James	8897	26th Dec. 1866	Improvements in or applicable to machines for sizing yarns or threads preparatory to weaving, part of which improvements are applicable to other purposes.
FLETCHER, JOHN	504	17th Feb. 1866	Valves for regulating the pressure of steam and other fluids.
FLETCHER, WILLIAM HENRY -	718	9th March 1866	An improved washing machine.
FLEURQUIN, ALEXANDRE [PHILLIPPE EUGÈNE.	1919	24th July 1866	An improved sweeping machine or apparatus. (Patented by William Edward Gedge.)
Flicotbaux, Elmir Jean [François.	1552	5th June 1866	Improvements in water-closets, urinals, lava- tories and other receivers, and also in taps for supplying liquids to the same.
Florange, Eugène Henry -	1139	23rd April 1866	Stamping on flatted or unflatted metals.
Florange, Eugène Henry -	1140	23rd April 1866	Incurvating, or rendering concavo-convex, metals either in a flatted or unflatted state.
"FLORENCE MANUFACTURING [COMPANY."	2436	22nd Sept. 1866	Improvements in brushes and in their manufacture. (Patented by Ira Dimock.)
FLOSS, BARON VON ROESGEN [Von.	2621	10th Oct. 1866	Apparatus for preventing injury to persons in railway trains. (Patented by William Manby.)
Foard, Jeremiah William -	1997	2nd Aug. 1866	Apparatus for raising aëriform and other fluids. (Patented by George Campbell.)
Foley, James	1326	9th May 1866	Machinery or apparatus for drying and cooling grain, applicable also to the manufacture of malt. (Patented by John Henry Johnson.)
FOMBURNA, VALENTIN SIL- [VESTRE.	1051	13th April 1866	Construction of sleepers or supports for the rails of railways and for other purposes.

Name of Patentee.	Number of Patent,	Date.	Subject-matter of Patent.
FONTENOY, CHARLES MARIN -	3198	5th Dec. 1866	Fastenings of covers for powder flasks or cases used in naval gunnery.
FORBES, HUGH	2598	9th Oct. 1866	Improvements in apparatus for the raising and propelling of water or other fluids, applicable likewise as a ship propeller, motive-power, fan, meter and for other purposes.
Fordred, John	558	23rd Feb. 1866	Treatment of certain products obtained in the refining of petroleum and of other hydro-carbon oils.
Forgie, William	1659	21st June 1866	Improvements in the construction of life boats and in sails for the same, for the purpose of saving life at sea.
Forbest, James Alexander	1607	13th June 1866	Construction of lanterns.
Förshaw, Jabez Henry -	601	27th Feb. 1866	Revolving shutters.
Forster, Edward	721	9th March 1866	Construction of side propellers for navigable vessels.
Forster, Thomas	2541	3rd Oct. 1866	Manufacture of elastic mats and coverings for floors.
FOSBERY, GEORGE VINCENT, [V.C.	1417	19th May 1866	Improvements in the lock and other parts of breech-loading fire-arms, and in cart- ridges for the same.
Fosbery, George Vincent, [V.C.	2293	6th Sept. 1866	Improvements in the lock and other parts of breech-loading fire-arms, and in cart- ridges and projectiles for the same.
Fossey, Edouard François -	204	22nd Jan. 1866	Improvements in reaping-machines, parts of which improvements are also applicable to mowing-machines. (Patented by John Henry Johnson.)
Foster, James	1007	9th April 1866	Moulding pipes, pillars, rollers or other articles of a similar character.
FOSTER, JOHN, the younger -	2213	28th Aug. 1866	Machinery for the manufacture of spool tubes and cartridge cases.
Foucault, Léon	1777	4th July 1866	Governors. (Patented by Michael Henry.)
Fournel, Jules Nicholas -	1823	11th July 1866	Improvements in the manufacture of iron and cast-iron, and in the apparatus employed therefor.
FOURNET, AUGUSTE	8116	27th Nov. 1866	A magic camera.
Foveaux, Henry Joseph [Francis Hubert.	908	28th March 1866	An improved apparatus for injecting liquids and applying liquids externally.
Fowler, Robert	1781	5th July 1866	Locomotive engines and tenders. (Communicated by Edwin Parke Quadling)
Fox, Charles	2510	28th Sept. 1866	A safety belt or apparatus for use in travel- ling, to prevent injuries from concussions or otherwise.
Fox, Charles Douglas -	1219	30th April 1866	Improvements in screw cutting and threading machines, and in the construction of screw nails and spikes. (Communicated by John Howard.)
Fox, Joseph Wesley	1412	18th May 1866	An improved apparatus for containing and dispersing or scattering liquid scents and other liquids. (Communicated by William Trivet Fox.)
Fox, William Trivet	1412	18th May 1866	An improved apparatus for containing and dispersing or scattering liquid scents and other liquids. (Patented by Joseph Wesley Fox.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
France, George Thornton -	2961	12th Nov. 1866	Manufacture of soda or alkali.
Frankland, William	2317	10th Sept. 1866	Apparatus for lubricating the valves, pistons, cylinders and all internal parts of steamengines where the steam has access.
Franzen, Nicolai Christain	3402	28th Dec. 1866	A steering indicator or a machine or apparatus for indicating to the eye, by day and night, the position and movement of the rudders of vessels.
Fraser, Alexander Colvin-	3226	7th Dec. 1866	Apparatus used in the manufacture of gas.
Fraser, Hugh	1357	11th May 1866	Improvements in corking bottles, and in the machinery or apparatus connected therewith.
Fraser, James	988	6th April 1866	An improved system for consecutively numbering checks and "making up" or binding check books when so numbered.
FRASER, ROBERT WILLIAM -	1822	11th July 1866	New or improved modes of obtaining and transmitting motive-power, and in the machinery or apparatus employed therefor.
FRASER, WILLIAM JOHN	1576	8th June 1866	Improvements in steam-boilers, which im- provements are also applicable to hot water and other boilers.
FREDET, AMABLE ALFRED -	35	4th Jan. ,1866	Preparing and treating wood and wood pulp for the manufacture of paper. (Patented by William Clark.)
Freeland, John	3054	21st Nov. 1866	Volute springs. (Patented by George Haseltine.)
FREEMAN, GEORGE FREDRICK	2955	12th Nov. 1866	A new composition applicable to rollers for calico printing and to other purposes.
FREEMAN, SAMUEL RICHARDS	2435	22nd Sept. 1866	Breaks for retarding machinery and vehicles used on rail or common roads.
FREER, JOHN	3223	6th Dec. 1866	Machines for dibbling or planting grain and seed, and an improved seed feeder and meter for planting machines.
Frère, Georges	1755	2nd July 1866	An improved apparatus for fishing.
FRIED, FRANZ	1760	2nd July 1866	New or improved plastic compounds appli- cable to various purposes where wood, horn, and other like substances are now employed.
Friedmann, Joseph Julius -	1572	7th June 1866	An improved preparation of materials applicable for the manufacture of hats, caps, bonnets, coats, cloaks, gaiters and other articles of clothing, pouches, portfolios and other articles of capacity for enclosing various useful articles. (Communicated by Maximilian Friedmann.)
Friedmann, Maximilian -	1572	7th June 1866	An improved preparation of materials applicable for the manufacture of hats, caps, bonnets, coats, cloaks, gaiters and other articles of clothing, pouches, portfolios and other articles of capacity for enclosing various useful articles. (Patented by Joseph Julius Friedmann.)
FRIEND, JOHN WALTER	644	3rd March 1866	Two-wheel vehicles.
FRISBEE, DENNIS	476	15th Feb. 1866	Improved mechanism for working apparatus for hoisting and pressing. (Patented by Edward Thomas Hughes.)
Frost, James	1028	11th April 1866	Machinery for breaking stones and crushing ores and other substances.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
FROST, RICHARD	2257	3rd Sept. 1866	Means or apparatus to be employed in order to facilitate the teaching of writing and drawing.
FROST, WILLIAM	2843	2nd Nov. 1866	An "auxiliary smith's fire."
FRY, WILLIAM THOMAS	60	9th Jan. 1866	Flasks, bottles and other similar receptacles. (Patented by Francis Wise.)
Fuller, Henry William -	2740	23rd Oct. 1866	Sewing machinery. (Patented by George Haseltine.)
Fuller, Jim Billings	993	6th April 1866	Improvements in drawing and spinning flax, hemp, china-grass and other fibre, and in the apparatus therefor.
Fuller, William Coles -	783	16th March 1866	Certain parts of the apparatus connected with the game of cricket.
Funk, Anton	846	22nd March 1866	Jacquard looms for weaving cut pile fabrics double. (Patented by Charles Denton Abel.)
FUNNELL, EDWARD	3089	24th Nov. 1866	Electric signals for use on railways.
FURNESS, WILLIAM	1992	2nd Aug. 1866	Machinery for cutting files and rasps.
FURNIVAL, RICHARD	2694	18th Oct. 1866	Braiding machines.
Furrell, Frederick	1262	4th May 1866	An improved method of fixing rowlocks, crutches and thowls to all descriptions of boats and craft propelled by oars.
Fussell, James George [Curry.	2489	22nd Sept. 1866	Construction of scythes.
FYERS, ROBERT	1370	14th May 1866	Construction of umbrellas and parasols.
FYPE, WILLIAM HOLBORNE -	1712	27th June 1866	Apparatus for making bricks. (Communicated by Robert Loudon Walker.)
FYFFE, DAVID ADAM	1654	20th June 1866	Manufacture of pulp.

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Gablenz, Antoine Baron De	989	6th April 1866	Improvements in anti-friction bearings appli- cable to running shafts and axletrees of machines and vehicles of all descriptions.
Gablenz, Henry Ernest [Baron de, jun ⁷ .	466	14th Feb. 1866	An improved construction of submarine telegraphic cable for the transmission of electric despatches.
GADD, WILLIAM	118	13th Jan. 1866	Looms for weaving.
GADD, WILLIAM	1429	21st May 1866	Looms for weaving.
Gadsden Henry Arthur -	2471	25th Sept. 1866	Improvements in lamps for and in the mode of burning volatile oils, spirits and other fluids. (Patented by Henry Starr.)
Gainspord, William Dunn -	2189	25th Aug. 1866	Improvements in railways and in engines for use thereon.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Galand, Charles François -	2695	18th Oct. 1866	Improvements in breech-loading fire-arms and in cartridges for the same, part of which improvements are applicable to ordnance. (Patented by Marc Antoine François Mensons.)
Gale, Frederick	244 8	22nd Sept. 1866	Waterpoofing leather, canvas and other fabrics.
Gall, Charles	487	15th Feb. 1866	Apparatus for effecting the consumption of smoke in steam-boiler and other similar furnaces.
Gall, Thomas	2238	30th Aug. 1866	Machinery or apparatus for working stone, or cutting and working mouldings thereon.
GALLAPENT, DANIEL	736	10th March 1866	Pumps.
GALLAFENT, DANIEL	1838	12th July 1866	Apparatus for transmitting motion to the rudders of ships and other vessels.
Gallet, Victor	1625	14th June 1866	Manufacture of cast steel.
GALLET, VICTOR	8266	12th Dec. 1866	Manufacture of steel.
Gallo, Arthur Lewis Le -	263	26th Jan. 1866	Apparatus for lubricating purposes. (Patented by John Henry Johnson.)
GALLO, ARTHUR LEWIS LE -	1759	2nd July 1866	Apparatus for lubricating purposes. (Patented by John Henry Johnson.)
Gamgee, Arthur	2454	24th Sept. 1866	Improvements in the slaughtering of animals with a view to the preservation of their bodies as articles of food, and in the method of preserving animal and vegetable substances.
Gamgee, John	2454	24th Sept. 1866	Improvements in the slaughtering of animals with a view to the preservation of their bodies as articles of food, and in the method of preserving animal and vegetable substances.
Gamgee, Joseph	902	27th March 1866	Improvements in the manufacture of horse shoes and in the apparatus employed therein.
Ganeval, Joseph Athanase	2237	30th Aug. 1866	Apparatus for propelling and steering vessels. (Patented by William Clark.)
Ganneron, Edmond Théo- [dore.	917	29th March 1866	Apparatus for decorticating rice and other grain. (Patented by Henry Edward Newton.)
GARDNER, CHARLES HENRY -	2803	30th Oct. 1866	Lithographic, zincographic and typographic printing machines.
Gardner, Henry	252	25th Jan. 1866	Machinery or apparatus for cleansing the bottoms of ships and other submerged structures.
GARDNER, HENRY	1172	26th April 1866	Hooks or holders whereby to suspend curtains and other articles.
GARDNER, HENRY	1678	23rd June 1866	Improvements in cases for packing and transporting bottled ales and other liquors, and in the method of packing the same.
GARRICK, THOMAS	687	6th March 1866	Machinery for making eyelets. (Patented by George Tomlinson Bousfield.)
GARRICK, THOMAS	2250	lst Sept. 1866	Machines for making eyelets. (Patented by George Tomlinson Bousfield.)
Garrigue, Jules	808	31st Jan. 1866	Lamps. (Patented by Henry Adrien Bonneville.)

Name of Patentee.	Number of Patent.	Date.		Subject-matter of Patent.
GAESIDE, HENRY	2570	6th Oct.	1866	Machinery or apparatus for marking, etching or engraving on cylindrical and other surfaces.
Gathercole, James	2049	9th Aug.	1866	Machinery for making envelopes and paper and other bags.
GATLEY, ROBERT	363	6th Feb.	1866	Blowing or blast engines.
GAUCHEZ, PAUL	2649	13th Oct.	1866	An improved machine for cleaning and card- ing wool, cotton and other fibrous sub- stances. (Patented by Louis Rudolph Bodmer.)
GAUDEL, CHARLES FRANCK DE	2321	10th Sept.	1866	Making boot legs of one piece.
GAUDET, JEAN MARIE	2874	6th Nov.	1866	Improvements in rolling metals and in the machinery or apparatus employed therein. (Patented by John Henry Johnson.)
Gaudin, Félix	1310	8th May	1866	An improved clarifying apparatus. (Patented by William Edward Gedge.)
GAUTIER, DESIRÉE	1321	8th May		Apparatus for supporting and extending the skirts of ladies' dresses.
GAUTRAYE, AUGUSTUS DE LA	2245	31st Aug.	1866	An improved method for the preservation of wood. (Communicated by Monsieur Manne (Anatole).)
GAVEAUX, ALEXANDRE YVES	243	24th Jan.	1866	Typographic printing apparatus. (Patented by William Clark.)
GAY, RICHARD JARRAUD -	2850	3rd Nov.	1866	An improved composition for coating walls or other surfaces so as to render them impervious to the action of water or moisture.
GEDGE, WILLIAM EDWARD -	189	20th Jan.	1866	Improved preparations of the plant known as the coce, to permit its incorporation with confectionery of all kinds, syrups and liqueurs, and its use for dyeing. (Communicated by Felix Boutellas-Desmoulins.)
GEDGE, WILLIAM EDWARD -	190	20th Jan.	1866	An improved construction of careening basin or graving dock. (Communicated by Leonard Goursseau, junior.)
GEDGE, WILLIAM EDWARD -	214	23rd Jan.	1866	An improved generator for steam-engines. (Communicated by Louis François Désiré Dufour.)
GEDGE, WILLIAM EDWARD -	492	16th Feb.	1866	Construction of carts and other vehicles. (Communicated by Désiré Massé.)
GEDGE, WILLIAM EDWARD -	493	16th Feb.	1866	Improved machinery or apparatus for reduc- ing the thickness of parts of calf skins or of other skins or hides. (Communicated by Adolphe Bel.)
GEDGE, WILLIAM EDWARD -	533	21st Feb.	1866	Construction and arrangement of steam- boilers. (Communicated by Thomas Mondini.)
GEDGE, WILLIAM EDWARD -	590 	26th Feb.	1866	An improved method of agglomerating peat, by which it is rendered suitable for use as fuel in the furnaces of manufactories, and in other fire-places. (Communicated by Edmund Sharpe.)
GEDGE, WILLIAM EDWARD -	594	27th Feb.	1866	An improved process for extracting the juice from sugar-cane, beet-root and other plants. (Communicated by Frederick James Vivian Minchin.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GEDGE, WILLIAM EDWARD -	785	10th March 1866	An improved manufacture of studs, buttons, ornamental plates and analagous articles used in saddlery and harness, upholstery, military equipments, clothing and for other purposes, making them either of rolled, cast or wrought metal, or of any hard material, such as horn, ivory, guttapercha, wood or hardened india-rubber, and with two or several shanks or metal fastening rings or prongs. (Communicated by Lorenzo Salvy.)
GEDGE, WILLIAM EDWARD -	810	19th March 1866	A new or improved pneumatic steam dredg- ing machine. (Communicated by Emilio Musciacco.)
GEDGE, WILLIAM EDWARD -	892	27th March 1866	A combined arm chair and travelling bag. (Communicated by Léandre Paul Quéti- neau.)
GEDGE, WILLIAM EDWARD -	893	27th March 1866	The application of metallic substances upon textile materials in the state of thread. (Communicated by Adolphe Benjamin Albert François Joseph Lepoutre-Pollet.)
GEDGE, WILLIAM EDWARD -	1165	25th April 1866	An improved construction of spring bed or mattress and apparatus connected therewith. (Communicated by Jean Antoine Alex- andre Dupuy and Pierre Grivaud.)
GEDGE, WILLIAM EDWARD -	1267	4th May 1866	Improvements in railway rolling stock with the object of ensuring the safety of travellers. (Communicated by Léon Edouard Laurency.)
GEDGE, WILLIAM EDWARD -	1309	8th May 1866	An improved combination of apparatus fitting within every sort of chimney and preventing any smoke being driven back into apartments. (Communicated by Louis Charlemagne Bricoteaux and Louis Jules Bricoteaux.)
GEDGE, WILLIAM EDWARD -	1810	8th May 1866	An improved clarifying apparatus. (Communicated by Félix Gaudin and Urbain Sanceau.)
GEDGE, WILLIAM EDWARD -	1328	9th May 1866	An improved method of and apparatus for preserving the banks of rivers and water-courses or other embankments from corrosion or wasting. (Communicated by Charles Nicoli.)
GEDGE, WILLIAM EDWARD -	1702	26th June 1866	Manufacture of blocks or pulleys by machinery. (Communicated by Arsène Bonnardel.)
GEDGE, WILLIAM EDWARD -	1722	28th June 1866	Manufacture of metal boxes, tins or cases. (Communicated by Childéric Allain and Jules Trottier.)
GEDGE, WILLIAM EDWARD -	1780	5th July 1866	Manufacturing by the aid of a special arrangement of cylinders or rollers, a novel sort of bar or rod iron suitable for making horse shoe nails. (Communicated by Joseph Jules Falaties.)
GEDGE, WILLIAM EDWARD -	1866	17th July 1866	An improved gas-burner. (Communicated by Julius Brönner.)
GEDGE, WILLIAM EDWARD -	1873	18th July 1866	An improved method of instantly releasing or unharnessing one or more horses from carriages of every description. (Communicated by Elie Larivière.)

Name of Patentes.	Number of Patent.	Date.	Subject-matter of Patent.
GEDGE, WILLIAM EDWARD	1919	24th July 1866	An improved sweeping machine or apparatus. (Communicated by Alexandre Philippe Eugène Fleurquin.)
GEDGE, WILLIAM EDWARD	1972	31st July 1866	Imitating mother-of-pearl upon various sur- faces. (Communicated by Charles Sticht.)
GEDGE, WILLIAM EDWARD	1978	31st July 1866	An improved fastening intended to replace the ordinary screws and nuts in bedsteads and articles of furniture generally. (Communicated by Pierre Armand Pro- tard.)
GEDGE, WILLIAM EDWARD	1974	31st July 1866	An improved spade or digging implement. (Communicated by Marie Naslot.)
GEDGE, WILLIAM EDWARD	2057	9th Aug. 1866	Construction of buckles or fastenings for braces and other articles. (Communicated by Charles Alfred Tordery.)
GEDGE, WILLIAM EDWARD	2080	14th Aug. 1866	An improved horse shoe. (Communicated by Charles Jean Baptiste Peillard.)
GEDGE, WILLIAM EDWARD	2142	21st Aug. 1866	An improved portable mill, parts of which are applicable to mill stones generally. (Communicated by François Cailleaux.)
GEDGE, WILLIAM EDWARD	- 2170	23rd Aug. 1866	An improved saw specially adapted fo forest use, and improved saw teeth appli cable to saws generally. (Communicated by Pierre Flamm.)
GEDGE, WILLIAM EDWARD	- 2322	10th Sept. 1866	An improved manufacture of studs, buttons ornamental plates and analogous article used in saddlery and harness, upholstery military equipments, clothing and fo other purposes, making them either o rolled, cast or wrought metal, or of an hard material, such as horn, ivory, gutta percha, wood or hardened india-rubber and with two or several shanks or meta fastening rings or prongs. (Communicated by Lorenzo Salvy.)
Gedge, William Edward	- 2823	10th Sept. 1866	Manufacture of calcareous bricks or artificia stones. (Communicated by Alfred Françoi Osselin.)
Gedge, William Edward	2336	11th Sept. 1866	An improved machine or apparatus for manufacturing leather straps, belts or bands for driving machinery and for other purposes. (Communicated by Charles Jules Camill Bonnot.)
Gedge, William Edward	- 2340	12th Sept. 1866	An improved indicator or register. (Communicated by Etienne Théophil Prioux.)
GEDGE, WILLIAM EDWARD	- 2384	17th Sept. 1866	An improved construction of railway. (Communicated by François Guillet.)
Gedge, William Edward	- 2894	18th Sept. 1866	Machinery or apparatus for separating grain from straw. (Communicated by Pierre Ernest Antoin Revol.)
GEDGE, WILLIAM EDWARD	- 2407	19th Sept. 1866	A new or improved pneumatic steam dredging machine. (Communicated by Emilio Musciacco.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GEDGE, WILLIAM EDWARD -	2477	26th Sept. 1866	Certain improvements in looms for weaving gauzes and other fancy goods. (Communicated by Louis Joseph Gras, Charles Isaac Dumontier and Léon Gras, senr.)
GEDGE, WILLIAM EDWARD -	2583	8th Oct. 1866	An improved tilt hammer. (Communicated by Phillipe Tisserand.)
GEDGE, WILLIAM EDWARD -	2599	9th Oct. 1866	An improved funnel. (Communicated by Emile de Fages de Latour.)
GEDGE, WILLIAM EDWARD -	2600	9th Oct. 1866	Cutting out of boots, shoes and gaiters of all kinds. (Communicated by Camille Mouchonay-Sirand.)
GEDGE, WILLIAM EDWARD -	2698	18th Oct. 1866	Certain improvements applied to jacquard looms. (Communicated by Charles Devillaine.)
Gedge, William Edward -	2889	7th Nov. 1866	An improved combination of apparatus fitting within every sort of chimney and preventing any smoke being driven back into apartments. (Communicated by Louis Charlemagne Bricoteaux and Louis Jules Bricoteaux.)
Gedge, William Edward -	2910	8th Nov. 1866	An improved method of and apparatus for preserving the banks of rivers and water-courses, or other embankments, from corrosion or wasting. (Communicated by Charles Nicoli.)
Gedge, William Edward -	3023	17th Nov. 1866	Certain improvements applied to clocks and to the receiving apparatus of telegraphs. (Communicated by Edouard Néel.)
GEDGE, WILLIAM EDWARD -	3103	26th Nov. 1866	Improved machinery or apparatus for manufacturing wadding. (Communicated by Jean Marie Lazare Long.)
GEDGE, WILLIAM EDWARD -	8104	26th Nov. 1866	Improved apparatus for evaporating the juices of various substances. (Communicated by Jean Louis Lompret-Dumont.)
GEDGE, WILLIAM EDWARD -	8322	18th Dec. 1866	Machinery or apparatus for carding wool. (Communicated by Voelckel-Boell.)
GEDGE, WILLIAM EDWARD -	8844	20th Dec. 1866	Improved locomotive machinery or apparatus working without the aid of steam. (Communicated by Auguste Chenille.)
GEDGE, WILLIAM EDWARD -	3384	22nd Dec. 1866	Improved apparatus applied to millstones for grinding wheat and other grain. (Communicated by Pierre Baillargeon.)
Gee, James	2787	29th Oct. 1866	Certain improvements in the ventilation of hats or other coverings for the head.
GEEVES, WILLIAM	2837	1st Nov. 1866	Saw mills.
GELLÉE, VICTOR AMÉDEE -	2219	28th Aug. 1866	Improvements in railway breaks, parts of which improvements are applicable as shaft couplings. (Patented by John Henry Johnson.)
GENDROT, EDOUARD	1115	20th April 1866	Improvements in covering or protecting the mouths of bottles, jars and similar receptacles, and in capsules employed therein. (Patented by John Henry Johnson.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GENGEMBRE, PHILIPPE WIL-	1085	17th April 1866	Improvements in stereoscopes, which im- provements are also applicable to instru- ments for exhibiting single views.
GENNERAT, AUGUSTE LÉON -	2987	14th Nov. 1866	Locks. (Patented by William Clark.)
George, Benjamin George -	2690	18th Oct. 1866	Manufacture of show-cards, bills or tablets for advertising purposes.
GEORGE, IVIE MACKIE MAC -	1013	9th April 1866	A new or improved vertically floated paddle- wheel.
GEORGE, RICHARD	8125	27th Nov. 1866	Machinery or apparatus for obtaining motive- power.
George, Samuel Mac	1012	9th April 1866	A new or improved vertically floated paddle- wheel.
GERARD, ARISTIDE	2164	23rd Aug. 1866	Improvements in obtaining motive-power and in the apparatus employed therefor.
GERARD, WILLIAM	1372	14th May 1866	Fittings applicable to ships' decks to make tight joints around masts and other projections. (Partly communicated by Andrew Gove.)
GERIN, AUGUSTE	8207	5th Dec. 1866	Rotary engines. (Patented by William Clark.)
Gesell, Richard	1407	18th May 1866	An improved method of and apparatus for preparing and fluting picture and other frames or mouldings. (Communicated by Giulliamimus Pohlmann and John Dalk.)
GETTY, ANDREW CONKEY -	874	24th March 1866	Hoisting apparatus. (Patented by Alfred Vincent Newton.)
Gévelot, Jules Félix	592	26th Feb. 1866	Pin cartridges. (Patented by William Clark.)
Gévelot, Jules Felix	2589	8th Oct. 1866	Central fire percussion cartridges. (Patented by William Clark.)
Gévelor, Jules Felix	2946	10th Nov. 1866	Breech-loading fire-arms and cartridges. (Patented by William Clark.)
GHISLIN, THOMAS GOULSTON-	779	15th March 1866	Preparation of peat for the purpose of ren- dering it applicable to the manufacture of articles which are capable of being pro- duced by stamping, moulding, embossing or rolling.
GIAJOLA, CHARLES EMILE -	.307	31st Jan. 1866	Railway and other lamps.
GIAJOLA, CHARLES EMILE -	412	9th Feb. 1866	
GIBB, ARCHIBALD	56	8th Jan. 1866	or making of moulds for casting in metals.
GIBBS, WILLIAM ALFRED -	8036	19th Nov. 1866	Improvements in apparatus for drying hay and other cut crops, also in apparatus for raising or elevating the same.
Gibson, Alexander	248	25th Jan. 1866	Pianofortes.
GIBSON, JOHN WILLIAM -	175	19th Jan. 1866	Pumping engines for feeding and forcing fluids.
Gibson, William	1462	25th May 1866	Machinery or apparatus for the manufacture of metal rods, bars and tubes, together with a new or improved motive-power for communicating motion to the same.
GIBSON, WILLIAM COLVILLE -	2106	16th Aug. 1866	A new or improved method of protecting labels from injury.
GIESON, AMZI HANCEN VAN -	926	31st March 1866	Leather splitting machines. (Patented by Edward Thomas Hughes.)

• Name of Patentee.		lumber of Patent.	Date.		Subject-matter of Patent.
GILBERT, DENIS MARIE	-	1879	19th July	1866	A new fastening for letter envelopes.
GILBEY, WALTER	-	3841	20th Dec.		Improvements in the mode of treating bottle corks, especially for the purpose of obtaining a more distinctive and less easily effaceable mark or brand, and also for rendering the cork less liable to decay and the action of insects.
Giles, Alfred	-	1320	8th May	1866	Apparatus to be employed in evaporating volatile and combustible liquids to obtain light or heat therefrom.
Giles, Alfred	-	29 13	8th Nov.	1866	Machines for drying wool, corn, grain and other substances.
GILES, JOHN	-	2660	15th Oct.	1866	An improvement or improvements in the manufacture of certain descriptions of nails, tacks and pins.
GILLAM, SEWELL	-	117	13th Jan.	1866	Harvesting machines known as reaping- machines, mowing-machines and com- bined reaping and mowing machines. (Patented by Charles Stuart Baker.)
GILLARD, JOSEPH PIERRE	-	1878	19th July	1866	Apparatus for accelerating the generation and transmission of electricity.
GILLARD, JOSEPH PIERRE	-	3298	15th Dec	1866	Apparatus for attracting, exciting and dis- tributing in various directions, rapid successions of electric currents derived from the voltaic pile or other electric apparatus.
GILLES, HENRY ERNEST	-	2497	27th Sept.	1866	Processes and machinery for producing fibres suitable for being spun, from rags or remnants of woven or other textile fabrics made of silk, wool, cotton or other fibrous materials.
Gillies, James Waring	-	672	5th March	1866	An improved process of bleaching. (Patented by Alfred Vincent Newton.)
GILLOT, TOUSSAINT FRANCE	ÇOIS	1746	30th June		Manufacture of leather.
GILLOTT, JOHN	-	807	19th March	1866	Machinery for mining and working coal, minerals, stone and other earthy matters.
GILMAN, EDWARD	-	1981	lst Aug.		An improved velocipede,
GILPIN, CHARLES, M.P		449	13th Feb.	1866	Production of copper or other metallic plates for the purpose of printing therefrom. (Communicated by Francis Kossuth and Louis Theodore Kossuth.)
Gilson, David	-	2664	15th Oct.	1866	Improvements in means or apparatus for smoothing, pressing, finishing or ironing fabrics, part of which improvements is also applicable to heating rollers used in calendering and finishing fabrics.
GIRARD, CHARLES ADAM	-	1093	18th April	1866	Preparation of diphenylamine and analogous substances.
GIRARD, CHARLES ADAM	-	2686	17th Oct.	1866	Manufacture of blue coloring matter. (Partly communicated by George de Laire.)
GIRARDONI, ANTON -	-	1848	10th May	1866	Double-cylinder carding-engines. (Patented by Louis Rudolph Bodmer.)
GIRVAN, JOHN	-	1665	22nd June	1866	Reaping-machines.
GISBORNE, JOHN SACHI	EVE- ELL.	1387	16th May	1866	Improvements in and connected with thief and fire proof safes.
GISBORNE, JOHN SACHI	EVE- ELL.	2862	3rd Nov.	1866	Improved automatic means and apparatus to give warning of the dangerous existence of fire in warehouses, ships and other structures and places.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GISBORNE, JOHN SACHEVE-	2863	3rd Nov. 1866	Mariners' and other compasses.
GLADSTONE, THOMAS MURRAY	8041	20th Nov. 1866	Improvements in the manufacture of chains and chain cables, and in the machinery therefor.
Glashan, John M ^c	8280	7th Dec. 1866	An improved cap or cover to be applied for securing and labelling bottles.
GLEDHILL, PETER	8068	21st Nov. 1866	Machinery and apparatus to be used in cutting coal and other minerals.
GLENTON, SAMUEL	8027	19th Nov. 1866	Furnaces of steam-boilers.
GLOVER, FREDERICK ROBERT [Augustus.	8088	23rd Nov. 1866	An improved mode of and apparatus for raising and lowering persons, goods or articles in dwelling houses and other buildings.
GOAD, EDMOND	1877	18th July 1866	used on railways and other places.
Goad, John	1877	18th July 1866	used on railways and other places.
GOBERT, AUGUSTE	2925	10th Nov. 1866	An improved method of lubricating axletrees of fixed engines.
GODDART, CALVIN LUTHER -	1532	lst June 1866	Improvements in machinery for burring and cleansing wool and other fibrous substances. (Patented by Alfred Vincent Newton.)
Godefroy, Peter Augustin	857	6th Feb. 1866	An improvement in the treatment of rami or rhea fibre, commonly called and known as china or india grasses.
GODEFROY, PETER AUGUSTIN	2046	8th Aug. 1866	Treatment of jute.
Godfrey, Thomas	1662	22nd June 1866	Artificial teeth.
GORTSCH, LOUIS	1458	24th May 1866	Tobacco pipes. (Patented by Willam Snell.)
GOODAY, GEORGE ONLEY -	2419	21st Sept. 1866	Improvements in the manufacture of thatch and in machines or machinery for pro- ducing the same, which machines are also applicable for binding, sewing and stitch- ing-purposes generally.
Goodbrand, Walter	2894	7th Nov. 1866	Certain improvements in apparatus for rendering the security of safes and other depositories more effectual.
Goodfellow, Henry	8876	22nd Dec. 1866	Machinery or apparatus for grinding clay and such like substances.
GOODFELLOW, JACOB	558	23rd Feb. 1866	Pump buckets for lifting water, air or other fluids.
GOODFELLOW, JACOB	3333	19th Dec. 1866	An improved apparatus for moulding the moulds of wheels, pulleys and circular and segmental works, in green sand, without patterns.
GOODWIN, WILLIAM	778	15th March 1866	An improved rotary steam-engine.
Göransson, Ernest Fredrik	8414	28th Dec. 1866	Casting rings suitable for making tyres of railway wheels and for other purposes.
Göransson, Göran Fredrik	1469	25th May 1866	Improvements in blast furnaces and in the manufacture of iron therein.
Gordon, George	1005	7th April 1866	Treating animal charcoal.
Gordon, George	2403	19th Sept. 1866	Printing machines. (Patented by Henry Smith Cropper.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Gordon, George	2571	6th Oct. 1866	An improved system or process of treating animal charcoal used in the purification of sugar, and also improved apparatus to be employed in such process.
GORE, WILLIAM HENRY [POSTLETHWAITE.	2670	16th Oct. 1866	Improvements in "hansom cabs," parts of which improvements are equally applicable to other wheeled carriages.
Gore, William Henry [Postlethwaite.	3079	23rd Nov. 1866	Improvements in constructing and repairing roads, and in apparatus to be employed therefor.
GORTON, WILLIAM	1538	2nd June 1866	A new or improved means of propelling vessels.
Gossage, Frederick Her- [bert.	781	15th March 1866	Improvements in cleaning cotton seeds from fibrous material, and in preparing such seeds for the process of decortication.
Gossage, Frederick Her-	3021	17th Nov. 1866	Preparing cotton seeds for the process of decortication.
Gottheimer, Henry	128	13th Jan. 1866	Protectors for watches, portemonnaies and pocket books.
GOTTHEIMER, HENRY	8445	31st Dec. 1866	Fur-lined over boots and over shoes, the object of the invention being to keep the feet of the wearer warm whilst riding or walking or sitting.
Gouge, Henry Albert -	1384	15th May 1866	Mode of and means for promoting venti- lation. (Patented by George Haseltine.)
Gough, John	296	30th Jan. 1866	Apparatus for embossing in colours on paper, envelopes or other articles.
Gould, William	2210	28th Aug. 1866	A new or improved mode of reflecting various coloured lights and shades upon stereoscopic and other objects, for pro- ducing different effects thereon.
Goulding, John	303	31st Jan. 1866	Certain improvements in looms for weaving.
Goulding, John	3254	11th Dec. 1866	Looms for weaving.
Goursseau, Lëonard, jun -	190	20th Jan. 1866	An improved construction of careening basin or graving dock. (Patented by William Edward Gedge.)
Gove, Andrew	1372	14th May 1866	Fittings applicable to ships' decks to make tight joints around masts and other projections. (Patented by William Gerard.)
Goynaud, Chretien	1688	25th June 1866	Locks or fastenings. (Patented by Clinton Edgcumbe Brooman.)
Grafflin, Stephen Decator	1036	12th April 1866	An improved machine for cutting tobacco for chewing and smoking. (Patented by George Haseltine.)
GRAFTON, HENRY	1378	15th May 1866	Gun locks. (Communicated by William Rudolph and Augustus Braun.)
Graham, David Allen -	8345	20th Dec. 1866	Improvements in the construction of steam and water traps, and in the floats and valves for the same, also to some extent applicable to other fluid regulating vessels, for controlling the flow of the fluids passing through them.
Grandy, David, jun ^e	1042	12th April 1866	Apparatus for spooling and copping threads or yarns. (Patented by William Clark.)

Name of Patentee. ~	Number of Patent.	Date.	Subject-matter of Patent.
GRANT, JAMES BOUVERIE -	819	lst Feb. 1866	Apparatus or machinery for distilling and refining petroleum and other oils.
Gras, Lèon, sen ²	2477	26th Sept. 1866	Certain improvements in looms for weaving gauzes and other fancy goods. (Patented by William Edward Gedge.)
Gras, Louis Joseph	2477	26th Sept. 1866	Certain improvements in looms for weaving gauzes and other fancy goods. (Patented by William Edward Gedge.)
Gray, James	667	5th March 1866	Improved preparations for acting upon sea water or upon hard or impure water, in order to render such water more suitable for use in boilers and otherwise.
Gray, John Abercrombie -	2425	21st Sept. 1866	A new and improved machine for setting and distributing types. (Patented by William Clark.)
Gray, John McFarlane -	8821	18th Dec. 1866	Improvements in steering apparatus, refer- ring to a steering telegraph and rudder indicator, and a steam steering engine.
GRAY, JOSEPH WACE	88	10th Jan. 1866	Manufacture of rice starch.
Gray, Joshua	914	29th March 1866	Breech-loading fire-arms. (Patented by George Tomlinson Bousfield.)
GRAY, THOMAS	1058	14th April 1866	Improvements in the manufacture of soap or in the preparation of materials appli- cable to such manufacture, or for dressing or finishing textile fabrics.
GRAY, THOMAS	1082	17th April 1866	An improved mode of treating flax, hemp and other like fibrous substances.
GRAY, THOMAS	3232	7th Dec. 1866	Preparation of bleaching materials or compounds.
GRAYSON, BENJAMIN	835	21st March 1866	An improvement in bread plates or dishes.
GRAYSTOCK, ROBERT MAYOR	908	28th March 1866	Certain improvements in looms for weaving.
Greaves, George	308	31st Jan. 1866	Treating certain chemical matters and compounds for producing glazed surfaces.
Greaves, Hugh	1567	6th June 1866	Construction of parts of railways.
Greaves, Hugh	2839	2nd Nov. 1866	Improved apparatus to facilitate the un- loading and delivery of coal, stone and other articles from ships, barges and other vessels.
GREEN, EDWARD	2184	25th Aug. 1866	Gearing or apparatus for driving scrapers employed in cleansing the flues and tubes of boilers and heating apparatus.
Green, George	1476	28th May 1866	Improvements in the construction of sound- boards, and in the governing apparatus of the bellows for organs, harmoniums and other similar wind instruments.
GREEN, ROBERT	3079	23rd Nov. 1866	Improvements in constructing and repairing roads, and in apparatus to be employed therefor.
GREEN, SAMUEL WORCESTER	2425	21st Sept. 1866	A new and improved machine for setting and distributing types. (Patented by William Clark.)
GREEN, THOMAS	1802	7th May 1866	Steam-boilers.
GREEN, THOMAS	1457	24th May 1866	Steam and other boilers.
GREENHALGH, JOSEPH	511	17th Feb. 1966	Producing ornamental designs in color upon woollen, silk, cotton and other fabrics.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GREENING, JOSEPH	2595	9th Oct. 1866	Folding fencing.
GREENSHIELDS, JAMES	2733	23rd Oct. 1866	Making gas and coke.
GREENWAY, JOHN	1052	13th April 1866	Machinery for combing wool or other fibrous materials.
Greenwood, John Oates -	2249	1st Sept. 1866	An improvement in certain textile fabrics.
GREENWOOD, THOMAS	1452	23rd May 1866	Machinery for dressing silk.
GREENWOOD, THOMAS	1964	30th July 1866	Machinery and apparatus for the manufac- ture of boots and shoes and other cover- ings for the feet.
GREENWOOD, THOMAS	2651	13th Oct. 1866	An improved manufacture of trenail.
GREENWOOD, THOMAS	3031	19th Nov. 1866	Construction of lathes.
GREENWOOD, WILLIAM	2132	20th Aug. 1866	Manufacture of flocks.
Gregg, Isaac	1739	29th June 1866	Improvements in brick making machines and in the machinery or apparatus for operating the same. (Patented by John Henry Johnson.)
GREGOR, PETER Mc	8155	lst Dec. 1866	Machinery for spinning and doubling.
Gregory, Isaac	1815	11th July 1866	Means of communication by signals between passengers, guards and drivers of railway trains.
GREGORY, ISAAC	2276	4th Sept. 1866	Pianofortes.
Gregory, John	2821	31st Oct. 1866	Fastenings and backing for armour plates. (Patented by Henry Headly Williams.)
GREISS, PETER	1956	28th July 1866	Preparation of bodies in which nitrogen is substituted for hydrogen.
GRELL, JOHANN HEINRICH -	3276	13th Dec. 1866	Improvements in the construction of steam ships, sailing ships, boats and other vessels for sea or inland navigation, the said improvements being for the purpose of facilitating the quick steering or manœuvring of such vessels.
GRELLE, CHARLES DE	1678	22nd June 1866	Improved apparatus for cutting, grinding and polishing the bottoms of tumblers, wine-glasses, decanters and other articles in glass. (Communicated by Antoine Cuttier.)
Gresham, James	1055	13th April 1866	Improvements in or applicable to that apparatus for raising and forcing fluids and feeding steam-boilers, known as Giffard's injector.
Gresham, James Harebooth	2771	26th Oct. 1866	Improvements in the manufacture of safety fuzes, and in the machinery, apparatus or means employed therein. (Communicated by William Robert Whitehorn.)
Grew, Nathaniel	2696	18th Oct. 1866	Improved apparatus for separating liquid from solid substances.
GRIER, WILLIAM WATSON -	1466	25th May 1866	An improved machine for the manufacture of augers, bits, drills and like tools and articles. (Patented by John Thomson King.)
GRIPPIN, HENRY	1740	29th June 1866	Combining india-rubber or compounds thereof with metallic substances, for the manufacture of valves and other uses.
GRIFFIN, JAMES THEODORE -	3446	31st Dec. 1866	Calendar movements for clocks. (Communicated by Henry Horton.)

Number of Patent.	Date.	Subject-matter of Patent.
2490	26th Sept. 1866	Machinery or apparatus for the cutting of files or the formation or making of their teeth.
2667	16th Oct. 1866	Improvements in furnaces and in construct- ing and actuating the moveable fire bars of furnaces.
1415	18th May 1866	Apparatus for propelling and steering steam vessels.
68	9th Jan. 1866	An improved wrench and cutter.
2226	29th Aug. 1866	An improved carriage axle for common roads, as also the clip for uniting the spring or springs to the same.
1445	23rd May 1866	Improvements in the treatment of grains from brewers, distillers and vinegar makers, rendering them more suitable for the food of cattle, and for brewers' purposes as a substitute for patent malt, and also in treating the wort or liquor extracted from the said grains, in order to convert it into a spirit or liquid suitable for manufacturing purposes.
1582	8th June 1866	Manufacture of cards, tablets and other articles from which marks made with ink or lead pencil may be repeatedly erased by moisture, without injury to the surface.
1285	lst May 1866	Apparatus for treating malt.
1165	25th April 1866	An improved construction of spring bed or mattress and apparatus connected therewith. (Patented by William Edward Gedge.)
1570	7th June 1866	Construction of safes, strong rooms and other similar depositories, and in the locks thereof.
2872	6th Nov. 1866	Printing textile fabrics or yarns.
610	28th Feb. 1866	Improvements in breech-loading revolving fire-arms, and in apparatus for extracting cartridges or cartridge cases therefrom. (Patented by David Leopold Cohn.)
2435	22nd Sept. 1866	Breaks for retarding machinery and vehicles used on rail or common roads.
987	6th April 1866	A new magic photography.
2641	12th Oct. 1866	Developing invisible photographs by the action of the ammonia vapours evolved from tobacco, and improvements in cigar tubes or holders and tobacco pipes for holding the said photographs.
8002	15th Nov. 1866	A chemical decoration on gold, silver and other similar metals and colours, on porcelain, glass-wares, crystal-wares, delftwares, potters-wares and similar matters, called "Grüne's proceeding."
3024	17th Nov. 1866	Improvements in railway wheels and tyres, and in casting the same and other articles requiring a hard surface combined with strength and toughness.
8088	19th Nov. 1866	Armour plating for vessels of war, floating or land batteries and fortifications.
	2490 2490 2487 1415 68 2226 1445 1582 1235 1165 1570 2872 610 2435 987 2641	2490 26th Sept. 1866 26th Oct. 1866 1415 18th May 1866 29th Aug. 1866 29th Aug. 1866 23rd May 1866 1445 23rd May 1866 1445 23rd May 1866 1650 25th April 1866 1670 7th June 1866 1670 7th June 1866 28th Feb. 1866 28th Feb. 1866 2435 22rd Sept. 1866 2641 12th Oct. 1866 3002 15th Nov. 1866 3002 15th Nov. 1866 3004 17th Nov. 1866 3004

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GRUSON, JAQUES HERMANN [AUGUSTE.	8085	19th Nov. 1866	Improvements in gun carriages and in the means of working heavy ordnance.
GRUSON, JAQUES HERMANN AUGUSTE.	3049	20th Nov. 1866	Construction of breech-loading ordnance.
GRUSON, JAQUES HERMANN [AUGUSTE.	8051	20th Nov. 1866	Manufacture of guns or heavy ordnance of cast metal.
Guen, Pierre Réné Marie Le	8066	22nd Nov. 1866	An improved process for combining tung- sten with cast-iron by conglomerating reduced wolfram.
Guérin, Antoine	1117	20th April 1866	Manufacture of boots and shoes. (Patented by Edward Thomas Hughes.)
GUEST, WILLIAM	8225	7th Dec. 1866	Improvements in the manufacture of cords or ropes from strands of fibrous material or wire, and in the machinery employed in such manufacture.
Guétat, Antoine Louis Marie	988	2nd April 1866	An improved process for obtaining colouring matters from aniline.
GUEUNIER-LAURIAC, JEAN -	2518	29th Sept. 1866	Process of casting iron cylinders or any other cast iron pieces, with hard metallic thickness or wrapper, and separately with white and grey iron, so that both kinds of casting are sticking together.
Guibert, Adolphe	1078	17th April 1866	An improved varnish for preserving wood, and for protecting iron ships and other metal work from oxydation and from fouling. (Patented by Clinton Edgcumbe Brooman.)
Guild, Edward	26 8	27th Jan. 1866	Improvements in softening fibrous materials and in the machinery or apparatus con- nected therewith.
Guillet, François	2384	17th Sept. 1866	An improved construction of railway. (Patented by William Edward Gedge.)
Guillet, Louis Désiré	2203	27th Aug. 1866	Improvements in or connected with carriage breaks. (Patented by Clinton Edgcumbe Brooman.)
GUINESS, WILLIAM STUART -	61	9th Jan. 1866	Sewing-machines.
Guizot, Léon	1955	28th July 1866	Apparatus for regulating the supply of water and other fluids to steam-boilers and other receptacles. (Patented by Charles Denton Abel.)
Gunner, James	866	6th Feb. 1866	An improvement in breech-loading fire-arms.
GURLT, ADOLF	1178	26th April 1866	Furnaces and apparatus for separating heated gases, fumes or vapours from each other and from solid or liquid bodies.
GUTTERIDGE, RICHARD	768	14th March 1866	Certain improvements in sewing-machines.
GWYNN, STUART	26	3rd Jan. 1866	Preparation of pigments. (Patented by Alfred Vincent Newton.)
GWYNNE, GEORGE	380	2nd Feb. 1866	Treating fatty and oily bodies.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.				
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HABICHT, CLAUDIUS EDWARD	3025	17th Nov. 1866	Machinery for submarine excavations. (Patented by William Edward Newton.)				
HACKETT, HENRY	665	5th March 1866	An improved safety valve for steam-boilers.				
HACKETT, WILLIAM	1837	10th May 1866	Certain improvements in the construction of water-closets and in the valves connected therewith.				
HACKING, WILLIAM HENRY -	271	27th Jan. 1866	Machinery or apparatus for sizing or pre- paring yarns or warps to be woven.				
Haddan, Herbert John -	552	23rd Feb. 1866	Iron safes.				
HADDAN, JOHN COOPE	552	23rd Feb. 1866	Iron safes.				
HADDAN, JOHN COOPE	1949	27th July 1866	Anchors.				
HADDAN, JOHN COOPE	2265	3rd Sept. 1866	Carriages for field artillery.				
HADDOCK, JESSE	1799	9th July 1866	Construction of shuttle tongues.				
HADFIELD, GEORGE	2627	11th Oct. 1866	Furnaces and cupolas.				
Hadley, Benjamin	725	9th March 1866	Certain improvements in bearing springs for carriages and other vehicles.				
Haeck, François	365	6th Feb. 1866	Lubricating the axles and bearings of railway rolling stock and other machinery. (Patented by Thomas James Smith.)				
Happenden, John	2977	14th Nov. 1866	An improved mode of authenticating or confirming telegraphic dispatches, and for apparatus to be employed therein. (Patented by Edward John Payne.)				
HAPPNER, JEAN PIERRE -	2203	27th Aug. 1866	Improvements in or connected with carriage breaks. (Patented by Clinton Edgcumbe Brooman.)				
Hagenmeyer, Gebhard -	1832	12th July 1866	Grease cups. (Patented by William Clark.)				
Haigh, Thomas	1499	29th May 1866	Coolers for the use of brewers and others.				
HAIGHT, WILLIAM HARVEY -	2086	7th Aug. 1866	Chucks for turning lathes and other tools. (Patented by William Edward Newton.)				
Haines, Thomas	1088	17th April 1866	Manufacture of tubular or double fabrics in warp machinery.				
HAINES, MICHAEL JOHN -	2344	12th Sept. 1866	Leather straps or driving bands.				
Hale, John Frederic Fish -	8360	20th Dec. 1866	An improved coupling for railway carriages. (Patented by William Robert Lake.)				
Hale, William Bainbridge	878	24th March 1866	An improved pencil for writing or marking upon textile fabrics. (Patented by Alfred Vincent Newton.)				
Haley, John Jay	380	8th Feb. 1866	Spring bed bottoms. (Patented by Samuel John Salkeld.)				
Hall, Dennis	98	11th Jan. 1866	Certain improvements in the construction of furnaces.				
Hall, George	2958	12th Nov. 1866	Certain improvements in coal oil lamps. (Patented by Alfred Vincent Newton.)				
Hall, Henry	408	9th Feb. 1866	Spinning and drawing rollers. (Patented by John Henry Johnson.)				
HALL, HENRY	8811	17th Dec. 1866	Certain improvements in the preparation of size and in apparatus connected therewith.				

Name of Patentee.		Number of Patent.	Date.		Subject-matter of Patent.
Hall, Joseph -		1491	29th May	1866	A new or improved kind of perforated elastic- faced cellular target.
HALL, NATHANIEL RICE	HARD -	54 3	21st Feb.	1866	Weighing apparatus.
HALL, ROBERT -		3362	21st Dec.	1866	Machinery for winding yarn and thread.
Hall, Samuel -		8353	20th Dec.	1866	Manufacture of "gossamer" hat bodies.
Hall, Samuel Standr	ING -	3362	21st Dec.	1866	Machinery for winding yarn and thread.
Hall, Thomas -		2769	26th Oct.	1866	Improvements in or applicable to lamps. (Patented by Nathaniel Hubbard Loomis.)
Hall, Thomas -		2770	26th Oct.	1866	Machines for composing and printing. (Patented by Nathaniel Hubbard Loomis.)
HALL, WILLIAM HATHE	RTON	1610	13th June	1866	Miners' safety lamps.
HALL, WILLIAM KING		194	20th Jan.	1866	Steam-boilers.
HALL, WILLIAM KING		232	24th Jan.	1866	Construction of boats.
Halliwell, John -		2076	13th Aug.	1866	An improved apparatus or implement for ploughing, digging and cultivating land.
Hallowell, Nathan		2248	31st Aug.	1866	Improvements in valves for pumps, said improvements being also applicable to steam valves.
Halot, Charles -		2252	lst Sept.	1866	An improved solder or composition for join- ing certain metals, or uniting fractures in certain metals, and for similar uses. (Patented by Adolphe Lebaudy.)
Ham, John Beacham		1991	2nd Aug.	1866	An improved corn rick stand and waterproof cover.
Hamel, Carl		1365	12th May	1866	Improvements in the means of effecting the combustion of fuel, and in apparatus employed therein. (Patented by Astley Paston Price.)
Hambl, Carl		1611	13th June	1866	Improvements in the apparatus for and in the method of effecting the combustion of fuel. (Patented by Astley Paston Price.)
Hamel, Charles -		956	4th April	1866	Effecting the combustion of fuel. (Patented by Francis Wise.)
Hamilton, John -		126	15th Jan.	1866	Improvements in propelling ships, vessels and boats, and in the apparatus connected therewith.
Hamilton, John -		2025	6th Aug.	1866	Artificial material for producing gas for illuminating purposes.
Hamilton, John -		2478	25th Sept.	1866	Manufacture of fuel for heating purposes.
Hamilton, John -		2683	17th Oct.	1866	A new and improved fuel.
Hamilton, Robert		1102	19th April	1866	An improved composition for coating or covering ships' bottoms and other surfaces subjected to the action of sea water. (Communicated by James Beeston and John Spence.)
Hammersley, William [R	AM ALPH.	1510	30th May	1866	Fluid compasses.
Hammersley, William [R	AM ALPH.	1627	15th June	1866	Fluid compasses.
Hammond, Edwin -		760	14th March	1866	Fire-arms.
Hammond, Edwin -		2267	3rd Sept.	1866	Fire-arms.
HAMMOND, HENRY -		760	14th March	1866	Fire-arms.
HAMMOND, HENRY -		2267	3rd Sept.		Fire-arms.
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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Hampson, William	2956.	12th Nov. 1866	Improvements in stretching woven fabrics during the processes of stiffening, sizing, drying or finishing them.
Hampton, Josiah	1898	17th May 1866	Furnaces for obtaining perfect combustion of fuel.
HANCOCK, CHARLES LAMB	583	24th Feb. 1866	Driving belts or bands.
HANCOCK, FREDERICK LAMB -	583	24th Feb. 1866	Driving belts or bands.
HANOT, GEORGES	828	20th March 1866	A new or improved compound or prepara- tion to be used in the treatment of jute and china grass. (Patented by William Clark.)
HARDCASTLE, ROBERT AN- [THONY.	849	22nd March 1866	Apparatus for raising and lowering neavy bodies.
HARDCASTLE, ROBERT AN- [THONY.	2333	11th Sept. 1866	Apparatus for measuring and indicating the quantity of liquid drawn off thereby.
HARDCASTLE, ROBERT AN- [THONY.	2867	5th Nov. 1866	Apparatus for transmitting and controlling motion.
HARDCASTLE, ROBERT AN- [THONY.	8046	20th Nov. 1866	Machinery or apparatus for raising and lowering heavy bodies.
Harding, John	2968	13th Nov. 1866	Machines for doubling cotton and other fibrous materials.
Harding, Thomas Richards	3087	23rd Nov. 1866	Machinery for drilling combs and hackles.
HARDING, THOMAS WALTER -	3087	23rd Nov. 1866	Machinery for drilling combs and hackles.
HARDY, THOMAS	3313	17th Dec. 1866	Construction of horse rakes.
Harpield, William Horatio	3178	3rd Dec. 1866	Improvements in chain cable holders appli- cable for capstans and windlasses, and in apparatus for driving capstans.
Harpield, William Horatio	3364	21st Dec. 1866	Method of and apparatus for propelling vessels.
HARGRAVE, JOSHUA	435	12th Feb. 1866	Apparatus for raising and discharging water or other liquids.
HARGREAVES, JOHN CROSBY -	1197	27th April 1866	Apparatus for the prevention of steam- boiler explosions.
Harjes, John H	2054	9th Aug. 1866	Musical instruments and notation. (Patented by William Clark.)
HARKES, GEORGE BELL	2048	9th Aug. 1866	Construction of rotary steam-engines.
HARLAN, JACOB	2119	17th Aug. 1866	Puddling furnsces. (Patented by William Clark.)
HARLOW, EDMUND	2326	10th Sept. 1866	Improvements in breech loading fire-arms and in revolving fire-arms, and in cart- ridges for the said fire-arms.
Harper, George	1578	8th June 1866	An improved composition for journal boves or bearings. (Patented by William Edward Newton.)
HARPER, JOHN McMullin -	2704	19th Oct. 1866	An improved type setting machine. (Patented by George Davies.)
HARRILD, HORTON	8196	5th Dec. 1866	Printing machines.
HARRILD, ROBERT	8196	5th Dec. 1866	Printing machines.
HARRINGTON, HENRY	212	22nd Jan. 1866	Propellers for propelling ships.
HARRIS, CHARLES	1549	4th June 1866	Machinery for cutting corks and bungs. (Patented by Corey McFarland.)
Harris, James	125	15th Jan. 1866	Improved portable appliances for horses' feet in frosty weather, to supersede the necessity for what is termed "roughing" the shoes.

Name of Patentce.	Number of Patent.	Date.	Subject-matter of Patent.
HARRIS, JAMES	1078	16th April 1866	An improved composition for preventing incrustation in steam-boilers.
HARRIS, JOSEPH BENVHUE -	3327	18th Dec. 1866	An improved mode of rendering paint un- inflammable. (Patented by William Robert Lake.)
Harris, Josiah	2847	3rd Nov. 1866	Improvements in apparatus for the produc- tion, distillation and refining of hydro- carbon and other oils from shale, cannel, coal, peat, lignite or other bituminous minerals.
HARRIS, SAMUEL	3289	14th Dec. 1866	An improved construction of steam motor. (Patented by Alfred Vincent Newton.)
HARRIS, WILLIAM RANDAL -	282	29th Jan. 1866	Weavers' healds or heddles.
HARRISON, BENJAMIN JOHNS	1836	12th July 1866	An improved construction of folding chair. (Patented by Alfred Vincent Newton.)
HARRISON, CHARLES	8424	29th Dec. 1866	Cocks or valves.
HARRISON, CHARLES WEIGHT-	1255	3rd May 1866	Obtaining copper and other metals from their ores.
HARRISON, EDWARD	323	2nd Feb. 1866	Certain improvements in looms for weaving.
HARRISON, EDWARD	1613	14th June 1866	Certain improvements in looms for weaving.
HARRISON, HENRY	1862	12th May 1866	Machinery for hammering cylinders and other articles of sheet metal.
HARRISON, JOHN	1362	12th May 1866	Machinery for hammering cylinders and other articles of sheet metal.
HARRISON, JOSEPH JOHN -	323	2nd Feb. 1866	Certain improvements in looms for weaving.
HARRISON, JOSEPH JOHN -	1613	14th June 1866	Certain improvements in looms for weaving.
HARRISON, SAMUEL	2559	4th Oct. 1866	Grate bars. (Patented by John Henry Johnson.)
HARRISON, WILLIAM	1362	12th May 1866	Machinery for hammering cylinders and other articles of sheet metal.
HARRISON, WILLIAM	2168	23rd Aug. 1866	Improved apparatus to facilitate communica- tion between the passengers and guards or drivers of railway trains.
HARRISON, WILLIAM	2738	23rd Oct. 1866	An improved method of consuming smoke in furnaces.
HARRISON, WILLIAM HENRY -	8110	26th Nov. 1866	An improved method or mode of producing optical illusions for dramatic and other like exhibitions.
HARRY, WILLIAM DYER -	11	lst Jan. 1866	Manufacture of kamptulicon and similar fabrics.
HART, ALFRED HENRY	104	12th Jan. 1866	Improvements in the manufacture of fas- teners for binding papers and for other like purposes, and in machinery to be used in the said manufacture.
HART, ALFRED HENRY	2295	7th Sept. 1866	Improvements in apparatus for signalling on railway trains and for other like purposes.
HART, GEORGE	428	10th Feb. 1866	Manufacture of hats, caps and other coverings for the head.
HART, HERBERT WILLIAM -	1716	27th June 1866	Improved means of or apparatus for preventing the accumulation of mud or dirt on carriage wheels.
HART, JOHN MATTHIAS	1352	11th May 1866	Connecting knobs or handles and their spindles to locks and latches.
HART, LAURENCE	1660	21st June 1866	Construction of rafts for saving life at sea and for other purposes.

Name of Patentee. Number of Patent.				
HARTLEY, WILLIAM, junior HARTLEY, EDMUND - 2131 20th Aug. 1866 HARTLEY, EDMUND - 2131 20th Aug. 1866 HARTLEY, WILLIAM GREEN- (WOOD. HARTSHORN, JAMES - 1890 5th May 1866 HARTSHORN, JAMES - 1890 5th May 1866 HARVEY, CHARLES - 714 9th March 1866 HARVEY, CHARLES - 1793 7th July 1866 HARVEY, CHARLES THOMPSON 1896 HARVEY, CHARLES THOMPSON HARVEY, WILLIAM - 2678 17th Oct. 1866 HARVEY, WILLIAM - 2678 17th Oct. 1866 HARELOWSKY, FREDINAND (WILLIAM) WILLIAM - 3678 17th Oct. 1866 HARELOWSKY, FREDINAND (WILLIAM) WILLIAM - 3678 17th Oct. 1866 A new stage carriage to be called the A 1 omnibus. HARVEY, GRORGE - 576 4th Feb. 1866 Construction for always. Communicated by John Jaceph Bender, Henry Joseph Bang and George Makillery. HABELTINE, GRORGE - 1086 12th April 1866 An improved machine for cutting tobacco for chewing and maching. (Communicated by John Jaceph Bender, Henry Joseph Bang and George Makillery). HABELTINE, GRORGE - 1191 20th April 1866 An improved machine for cutting tobacco for chewing and maching. (Communicated by John Jaceph Bender, Henry Joseph Bang and George Makillery). HABELTINE, GRORGE - 1191 20th April 1866 An improved machine for cutting tobacco for chewing and maching. (Communicated by John Jaceph Bender, Henry Joseph Bang and George Washington Hoyles and Stephen Decator Graffin). HABELTINE, GRORGE - 1191 20th April 1866 Manufacture of hete tiron. (Communicated by John Jaceph Bender, Henry Joseph Bang and George Washington Hoyles and Stephen Decator Graffin). HABELTINE, GRORGE - 1191 20th April 1866 Uniting and combining mineral and metallic substances with vegetable fibres and follows. (Communicated by John Jaceph Bender, Henry Joseph Bang and Thompower. (Communicated by John Jaceph Bender, Henry Joseph Bang and George Washington Hoyles and Stephen Decator Graffin). HABELTINE, GRORGE - 1191 20th April 1866 An improved mode of and means for promoting ventilating and extinguishing street and other gas lamps and burners. (Communicated by John Jaceph	Name of Patentee.	of	Date.	Subject-matter of Patent,
HARTLEY, EDMUND 2131 20th Aug. 1866 Improvements in slubbing and roving frames, a modification of which is applicable to the manufacture of other fabrics. HARTLEY, WILLIAM GREEN [WOOD.] HARTSHORN, JAMES - 1290 5th May 1866 Improvements in slubbing and roving frames, a modification of which is applicable to the manufacture of other fabrics. (Patented by George Haseltine.) HARVEY, CHARLES - 1749 5th May 1866 Improvements in slubbing and troving frames, and in the manufacture in slubbing and roving frames, a modification of which is applicable to the manufacture of other fabrics. (Patented by George Haseltine.) An improved method or system of producing mattings or tably weavings in lace manufactured in twist lace machines. (Communicated by Leon Berquier.) 9th March 1866 Improvements in railways and in the machines. (Patented by George Haseltine.) An improved method or system of producing mattings or tably weavings in lace manufactured in twist lace machines. (Patented by William Edward Newton.) A new stage carriage to be called the A 1 omnibus. HASELTINE, GEORGE - 575 24th Feb. 1866 Apparatus for carding the tow of flax, hemp or jute, or other fibrous substances, and assparating the woody particles therefrom. Construction of railways. (Communicated by Jasa Bigelow, jusior, and Swain Winkley.) HASELTINE, GEORGE - 1036 12th April 1866 An improved double-action piano-forte. (Communicated by John Joseph Bender, Henry Jo	HART, PHILO WARD	1069	16th April 1866	
HARTLEY, WILLIAM GREEN- [WOOD.] HARTLEY, WILLIAM GREEN- [WOOD.] HARTSHORN, JAMES - 1290 5th May 1866 14 May 1866 15 Which improvements are applicable to the manufacture of other fabrics. HARTSHORN, JAMES - 1290 5th May 1866 17 Marting or table we winding in lace manufacture of other fabrics. HARVEY, CHARLES - 714 9th March 1866 18 May 1866 19 May 18 May 1866 1	HARTCLIFFE, WILLIAM, junior	2012	4th Aug. 1866	linked chains, and in the machinery em- ployed in rivetting and swaging the same
HARVEY, CHARLES - 1980 The string of tably resulting of tably resulting and training or tably resulting of tably resulting of tably resulting of tably resulting or tably resulting and tably resulting or tably resulting or tably resulting and tably resulting and tably resulting or tably resulting and tably resulting and tably resulting factured in twist lace machines. (Communicated by Leon Berquier.) Harvey, Charles Thompson 1526 1526 1531 1540 1540 1551 1556 1556 1566 1566 1566 1566 1566 1566 1566 1566 1566 1566 1566 1566 1566 1666 1676 1686 1	HARTLEY, EDMUND	2131	20th Aug. 1866	frames, a modification of which is appli-
HARVEY, CHARLES - 1749 9th March 1866 Rough in the communicated by Leon Berquier.) HARVEY, CHARLES - 1749 9th March 1866 Breech-loading fire-arms. HARVEY, CHARLES THOMPSON 1526 31st May 1866 Breech-loading fire-arms. HARVEY, CHARLES THOMPSON 1526 31st May 1866 Breech-loading fire-arms. HARVEY, CHARLES THOMPSON 1526 31st May 1866 Breech-loading fire-arms. HARVEY, WILLIAM - 2678 17th Oct. 1866 An improved method or system of producing mattings or tably wearings in lace manufactured in twist lace machines. (Communicated by Milliam Edward Newton.) HASELTINE, GEORGE - 575 4th Oct. 1866 Apparatus for carding the tow of flax, hemp or jute, or other fibrous substances, and separating the woody particles therefrom. Construction of railways. (Communicated by Jasa Bigelow, junior, and Swain Winkley.) HASELTINE, GEORGE - 1036 12th April 1866 An improved machine for cutting tobacco for chewing and amoking. (Communicated by John Joseph Bender, Henry Joseph Bang and George Miller.) HASELTINE, GEORGE - 1120 20th April 1866 An improved mode of and means for lighting and extinguishing street and other gas lamps and burners. (Communicated by James Burnum Sweet.) HASELTINE, GEORGE - 1177 26th April 1866 Uniting and extinguishing street and other and Charles Chauncey Hinsadel.) HASELTINE, GEORGE - 1379 15th May 1866 Communicated by Taliaferro Preston Shaffner.) HASELTINE, GEORGE - 1884 15th May 1866 Mode of and means for promoting ventilation.		3098	24th Nov. 1866	pile fabrics, part of which improvements are applicable to the manufacture of other fabrics.
HARVEY, CHARLES 1793 7th July 1866 HARVEY, CHARLES THOMPSON 1536 HARVEY, CHARLES THOMPSON 1536 HARVEY, WILLIAM 2678 17th Oct. 1866 HABELTINE, GEORGE 575 24th Feb. 1866 HABELTINE, GEORGE 1036 HABELTINE, GEORGE 1036 HABELTINE, GEORGE 1120 20th April 1866 HABELTINE, GEORGE 1121 20th April 1866 HABELTINE, GEORGE 1137 HABELTINE, GEORGE 11384 15th May 1866 HABELTINE, GEORGE 13884 15th May 1866 HABELTINE, GEORGE 13894 HABELTINE, GEORGE 13894 HABELTINE, GEORGE 13894 15th May 1866 HABELTINE, GEORGE 13894 HABELTINE, GEOR	Hartshorn, James	1290	5th May 1866	An improved method or system of producing mattings or tabby weavings in lace manufactured in twist lace machines.
HARVEY, CHARLES THOMPSON 1526 31st May 1866 Improvements in railways and in propelling carriages and vessels by means of ropes or chains. (Patented by William Edward Newton.) A new stage carriage to be called the A 1 omnibus. HASELTINE, GEORGE - 575 24th Feb. 1866 Apparatus for carding the tow of flax, hemp or jute, or other fibrous substances, and separating the woody particles therefrom. Construction of railways. (Communicated by Asa Bigelow, junior, and Swain Winkley.) HASELTINE, GEORGE - 1036 HASELTINE, GEORGE - 1036 12th April 1866 An improved double-action piano-forte. (Communicated by John Joseph Bender, Henry Joseph Bang and George Müller.) An improved machine for cutting tobacco for chewing and emoking. (Communicated by George Washington Hoglen and Stephen Decator Graffin.) HASELTINE, GEORGE - 1120 20th April 1866 An improved mode of and means for lighting and extinguishing street and other gas lamps and burners. (Communicated by James Burnum Sweet.) HASELTINE, GEORGE - 1121 20th April 1866 Uniting and combining inneral and metallic substances with vegetable fibres and fabrics. (Communicated by Taliaferro Preston Shaffaer.) HASELTINE, GEORGE - 1379 15th May 1866 Centrifugal governors. (Communicated by David Shive.) HASELTINE, GEORGE - 1384 15th May 1866 Mode of and means for promoting ventilation.	Harvey, Charles	714	9th March 1866	Breech-loading fire-arms.
Carriages and vessels by means of ropes or chains. (Patented by William Edward Newton.) A new stage carriage to be called the A l omnibus. A paratus for carding the tow of flax, hemp or jute, or other fibrous substances, and separating the woody particles therefrom. Construction of railways. (Communicated by Asa Bigelow, junior, and Swain Winkley.) An improved double-ady. Joseph Bender, Henry Joseph Bang and George Muller.) An improved machine for cutting tobacco for chewing and smoking. (Communicated by Goorge Washington Hollen and Stephen Decator Graffin.) HASELTINE, GEORGE - 1120 20th April 1866 An improved mode of and means for lighting and extinguishing street and other gas lamps and burners. (Communicated by Richard Norton Allen and Charles Chauncey Hinsdale.) HASELTINE, GEORGE - 1177 26th April 1866 HASELTINE, GEORGE - 1379 15th May 1866 Centrifugal governors. (Communicated by David Shive.) Mangacture of and means for promoting ventilation.	Harvey, Charles	1798	7th July 1866	Breech-loading fire-arms.
HABELTINE, GEORGE - 1121 HABELTINE, GEORGE - 11379 HABELTINE, GEORGE - 11379 HABELTINE, GEORGE - 11384	Harvey, Charles Thompson	1526	31st May 1866	carriages and vessels by means of ropes or chains.
WILHELM. HASELTINE, GEORGE - 575 24th Feb. 1866 Construction of railways. (Communicated by Asa Bigelow, junior, and Swain Winkley.) An improved double-action piano-forte. (Communicated by John Joseph Bender, Henry Joseph Bang and George Miller.) HASELTINE, GEORGE - 1036 HASELTINE, GEORGE - 1120 20th April 1866 HASELTINE, GEORGE - 1121 20th April 1866 An improved machine for cutting tobacco for chewing and smoking. (Communicated by George Washington Hoglen and Stephen Decator Graffin.) An improved mode of and means for lighting and extinguishing street and other gas lamps and burners. (Communicated by James Burnum Sweet.) HASELTINE, GEORGE - 1121 20th April 1866 Manufacture of sheet iron. (Communicated by Richard Norton Allen and Charles Chauncey Hinsdale.) HASELTINE, GEORGE - 1379 15th May 1866 HASELTINE, GEORGE - 1384 15th May 1866 Mode of and means for promoting ventilation.	HARVEY, WILLIAM	2678	17th Oct. 1866	A new stage carriage to be called the A l
(Communicated by Asa Bigelow, junior, and Swain Winkley.) HASELTINE, GEORGE - 950 3rd April 1866 An improved double-action piano-forte. (Communicated by John Joseph Bender, Henry Joseph Bang and George Müller.) HASELTINE, GEORGE - 1120 20th April 1866 An improved machine for cutting tobacco for chewing and smoking. (Communicated by George Washington Hoglen and Stephen Decator Graffin.) HASELTINE, GEORGE - 1121 20th April 1866 An improved mode of and means for lighting and extinguishing street and other gas lamps and burners. (Communicated by James Burnum Sweet.) HASELTINE, GEORGE - 1121 20th April 1866 Manufacture of sheet iron. (Communicated by Richard Norton Allen and Charles Chauncey Hinsdale.) Uniting and combining mineral and metallic substances with vegetable fibres and fabrics. (Communicated by Taliaferro Preston Shaffner.) HASELTINE, GEORGE - 1379 15th May 1866 Centrifugal governors. (Communicated by David Shive.) HASELTINE, GEORGE - 1884 15th May 1866 Mede of and means for promoting ventilation.		2563	4th Oct. 1866	or jute, or other fibrous substances, and
HABELTINE, GEORGE 1036 12th April 1866 Inmroved machine for cutting tobacco for chewing and smoking. (Communicated by George Washington Hoglen and Stephen Decator Grafflin.) HASELTINE, GEORGE 1120 20th April 1866 An improved mode of and means for lighting and extinguishing street and other gas lamps and burners. (Communicated by James Burnum Sweet.) HASELTINE, GEORGE 1121 20th April 1866 Manufacture of sheet iron. (Communicated by Richard Norton Allen and Charles Chauncey Hinsdale.) Uniting and combining mineral and metallic substances with vegetable fibres and fabrics. (Communicated by Taliaferro Preston Shaffner.) HASELTINE, GEORGE 1379 15th May 1866 Mode of and means for promoting ventilation.	Haseltine, George	575	24th Feb. 1866	(Communicated by Asa Bigelow, junior,
for chewing and smoking. (Communicated by George Washington Hoglen and Stephen Decator Graffin.) An improved mode of and means for lighting and extinguishing street and other gas lamps and burners. (Communicated by James Burnum Sweet.) HABELTINE, GEORGE - 1121 20th April 1866 HABELTINE, GEORGE - 1177 26th April 1866 Uniting and combining mineral and metallic substances with vegetable fibres and fabrics. (Communicated by Taliaferro Preston Shaffner.) HABELTINE, GEORGE - 1379 15th May 1866 HABELTINE, GEORGE - 1884 15th May 1866 Mode of and means for promoting ventilation.	Haseltine, George	950	3rd April 1866	(Communicated by John Joseph Bender, Henry Joseph Bang and George
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(Communicated by Richard Norton Allen and Charles Chauncey Hinsdale.) HASELTINE, GEORGE 1177 26th April 1866 Uniting and combining mineral and metallic substances with vegetable fibres and fabrics. (Communicated by Taliaferro Preston Shaffner.) HASELTINE, GEORGE 1379 15th May 1866 Centrifugal governors. (Communicated by David Shive.) HASELTINE, GEORGE 1884 15th May 1866 Mode of and means for promoting ventilation.	Haseltine, George	1120	20th April 1866	ing and extinguishing street and other gas lamps and burners.
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HABELTINE, GRORGE 1884 15th May 1866 Mode of and means for promoting ventilation.	HASELTINE, GEORGE	1177	26th April 1866	tallic substances with vegetable fibres and fabrics. (Communicated by Taliaferro Preston
tion.	Haseltine, George	1379	15th May 1866	Centrifugal governors. (Communicated by David Shive.)
	Haseltine, George	1384	15th May 1866	tion.

 			TATEMIEES	
Number of Patent.	Date.		Subject-matter of Patent.	
 1448	23rd May 18	366	Improvements in the moulds or matrices of stereotype plates, and in machinery for forming the same. (Communicated by John Edson Sweet.)	
 1449	23rd May 18	366	Metal hoops for casks, tubs and other like vessels. (Communicated by John Louis Albertar)	1
 1494	29th May 18	366	Mode of and means for regulating and registering the tension of piano-forte strings.	,
 1495	29th May 18	366	An improved composition for removing incrustations and preventing the formation of the same in steam-boilers. (Communicated by Jacob James Lavo and Peter Menard Chouteau.)	-
 1816	11th July 18	366	Improvements in screw-bolts and in the apparatus employed in manufacturing the same. (Communicated by William Judson Clark.)	•
 2138	20th Aug. 18	366	An improved inking apparatus for printing in colors. (Communicated by John Knox Lowe.)	
 2156	22nd Aug. 18	366	An improved process for bleaching with the aid of hydrostatic and pneumatic pressure, conjointly or separately, wood straw and other fibrous material for the manufacture of paper pulp, and for bleaching flax, hemp, thread, yarns, felts cloths and other fibrous and textile materials. (Communicated by Henry Jones, Duncan Farquharson and Isaac Cowles Colton.)	C , B F ,
 2198	25th Aug. 18	366	Churns. (Communicated by Sylvester Franklin Schoonmaker.)	
 2484	26th Sept. 18	366	An improved bronzing machine. (Communicated by John Knox Lowe.)	
 2585	8th Oct. 18	866	Manufacture of leather binding. (Communicated by Matthew Henry Merriam and Eugene Lindsey Norton.)	-
 2687	17th Oct. 18	866	Means for preventing, indicating and correcting an undue degree of superheating of steam in steam-boilers, and for promoting an equality of temperature in the parts, for the more economical working thereof and for the prevention of explosions. (Communicated by Norman Wiard.)	e 8
 2718	20th Oct. 18	866	Sewing machinery. (Communicated by Lewis Budd Bruen.)	
 2787	23rd Oct. 18	866	Construction of travelling ovens. (Communicated by William Hinchliffe.)	
 2740	23rd Oct. 18	866	Sewing machinery. (Communicated by Henry William Fuller.	 : (
 2898	7th Nov. 18	366	An improved brake for railway carriages. (Communicated by Aaron Higley, Joseph Benjamin Birdsell and Varium Ogilor Birdsell.)	
	Patent 1448 1449 1494 1495 2138 2156 2198 2484 2585 2687 2718 2737 2740	Patent. 1448 23rd May 18 1449 23rd May 18 1494 29th May 18 1495 29th May 18 2138 20th Aug. 18 2156 22rd Aug. 18 2484 26th Sept. 18 2585 8th Oct. 18 2687 17th Oct. 18 2737 23rd Oct. 18 2740 23rd Oct. 18	Patent. - 1448 23rd May 1866 - 1449 23rd May 1866 - 1494 29th May 1866 - 1495 29th May 1866 - 1816 11th July 1866 - 2188 20th Aug. 1866 - 2156 22rd Aug. 1866 - 2484 26th Sept. 1866 - 2585 8th Oct. 1866 - 2687 17th Oct. 1866 - 2787 23rd Oct. 1866 - 2740 23rd Oct. 1866	Date Subject-matter of Patent.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Haseltine, George -	- 2900	7th Nov. 1866	An improved process for producing pictures, ornamental designs, letters and other characters or figures on and in marble and other calcareous stones. (Communicated by Asa Hill.)
HASELTINE, GEORGE -	- 3048	20th Nov. 1866	Construction of hay, manure and other forks. (Communicated by John Alexander Montgomery.)
HASBLTINE, GEORGE -	- 8054	21st Nov. 1866	Volute springs. (Communicated by John Freeland and Daniel Ward.)
HASELTINE, GEORGE -	3059	21st Nov. 1866	An improved mode of and means for attaching casters to the stands of sewing-machines. (Communicated by Myron Perry.)
HASELTINE, GEORGE -	- 3065	22nd Nov. 1866	Machinery for drilling rocks. (Communicated by Charles Burleigh.)
Haseltine, George -	3098	24th Nov. 1866	Improvements in looms for manufactur ng pile fabrics, part of which improvements are applicable to the manufacture of other fabrics. (Communicated by William Greenwood Hartley.)
HASELTINE, GEORGE -	- 8134	28th Nov. 1866	Mode of and means for regulating and registering the tension of pianoforte strings. (Communicated by Levi Lincoln Tower.)
HASELTINE, GEORGE -	- 3186	4th Dec. 1866	Improvements in mewing and reaping machines, partly applicable to carriages and other wheeled vehicles. (Communicated by John Gould Perry.)
Haseltine, George -	- 3217	6th Dec. 1866	Looms and shuttles for weaving. (Communicated by Benjamin Oldfield and Edward Oldfield.)
Haseltine, George -	- 8237	8th Dec. 1866	An improved machine for pegging boots and shoes. (Communicated by Reuben Whitehouse Drew.)
HASELTINE, GEORGE -	- 3429	29th Dec. 1866	Fastenings for pocket-books, diaries, memorandum books and other similar articles. (Communicated by John Frederick Dubber and Carlos Bardwell.)
Haberick, Ernest Christia	N 727	9th March 1866	An improvement in the melting of iron. (Patented by Alfred Vincent Newton.)
Haskins, David Greene	- 1008	7th April 1866	Apparatus for heating houses and apart- ments. (Patented by George Davies.)
Habkins, David Greene	- 1240	2nd May 1866	Improvements in the method of heating the boilers of locomotive and other steamengines, and in the apparatus employed for such purpose. (Patented by George Davies.)
Haslaw, Jonathan Mort	- 1353	11th May 1866	Certain improvements in machinery for pre- paring, spinning and doubling cotton or other fibrous substances.
HASSALL, ARTHUR HILL, M.I). 483	15th Feb. 1866	Preparation of meat for food.
Hastings, Charles -	- 1112	20th April 1866	Machinery for spinning and doubling.
HATTERSLEY, RICHARD LONG		17th Oct. 1866	Apparatus for working the healds employed in looms for weaving.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Haussman, Nicolas Valentin	3062	21st Nov. 1866	Preserving corn or other grain, beans o seeds. (Patented by John Barker.)
Hauworth, John	3309	17th Dec. 1866	Steam-boilers and other furnaces,
Hawdon, William	1054	13th April 1866	Distributing valves for steam and othe engines.
HAWDON, WILLIAM MARCH -	1054	13th April 1866	Distributing valves for steam and other engines.
HAWKINS, ABDIEL	2960	12th Nov. 1866	Improvements in sculpturing or formin ornamental and other devices on and i marble, stone and other substances.
Hawksley, George William	1813	11th July 1866	A new and improved arrangement of furnac to be applied to steam-boilers, which is also applicable for other purposes.
HAWORTH, GEORGE	674	6th March 1866	An improved composition or preparation for sizing cotton, linen or woollen yarns an other similar substances.
HAWORTH, GEORGE	1741	30th June 1866	An improved material for covering roller used in the various processes of makin cotton, linen and other yarns.
Haworth, James	2708	19th Oct. 1866	Certain improvements in the manufactur of hats or coverings for the head, and is apparatus connected therewith.
Haworth, John	1040	12th April 1866	Construction of stables for horses.
HAYCOCK, SAMUEL HATT -	2893	18th Sept. 1866	Projectiles for fire-arms and ordnance. (Patented by William Robert Lake.)
HAYEM, ISIDORE, jun'	1945	26th July 1866	Buttons or studs to be used for fastenin the shirt, the false collar and the crave or bow cravat, ladies' collars and crava or other wearing-apparel.
HAYES, HENRY TRUMAN BOS- [TURCK.	2928	10th Nov. 1866	Coffee hullers. (Patented by Henri Adrien Bonneville.)
HAYES, JAMES, the elder -	1072	16th April 1866	Improvements in machinery or apparate for shaking, riddling, raising and delive ing straw, hay, corn and other like agricultural produce, and in the mode driving or transmitting motion theret parts of which improvements are applicable to the driving or transmitting motion to other machinery.
HAYES, JAMES, the younger -	1072	16th April 1866	Improvements in machinery or apparate for shaking, riddling, raising and delive ing straw, hay, corn and other like agricultural produce, and in the mode driving or transmitting motion theret parts of which improvements are applicable to the driving or transmitting motion to other machinery.
Hayes, Josiah	1072	16th April 1866	Improvements in machinery or apparate for shaking, riddling, raising and delive ing straw, hay, corn and other like agricultural produce, and in the mode driving or transmitting motion theret parts of which improvements are applicable to the driving or transmitting motion to other machinery.
HAYMAN, FRANZ	3339	19th Dec. 1866	Breech-loading fire-arms. (Communicated by Charles Robert-Gillo

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HAYWARD, ALBERT	1027	10th April 1866	Receptacles for bottles, eggs and other fragile articles.
HEALEY, CHARLES EDWARD [HEALEY CHADWYCK.	219	23rd Jan. 1866	Closing the hatchways or deck openings of ships, and side ports or openings in the same.
HEAP, ROBERT	8099	24th Nov. 1866	Self-acting machinery or apparatus for unit- ing together two or more strips of leather or other material, to be used as machine belts, straps or bands, or for other similar purposes.
Heaps, Edward Knowles -	2917	9th Nov. 1866	Cooking ranges.
Hearsey, John Fulleck -	561	23rd Feb. 1866	An improved construction of spirit meter. (Communicated by Edward Payne.)
HEATHER, HENRY	1054	13th April 1866	Distributing valves for steam and other engines.
HEATHFIELD, WALTER	1454	24th May 1866	Construction of iron girders and joists.
HEATON, JOHN	798	17th March 1866	Improvements in the conversion of cast iron into steel, and in the means or apparatus employed therein.
HEBERT, JOHN HARVEY -	3180	4th Dec. 1866	Improvements in the manufacture of white lead, and in the vessels connected therewith. (Patented by Henri Adrien Bonneville.)
HEDGES, JOHN COOPER	818	20th March 1866	An improved fire-escape.
Hedler, Charles	1179	26th April 1866	Production of photographic pictures.
HEER, ISAAC	348	5th Feb. 1866	Improvements in elastic fabrics, and in the application thereof to the manufacture of boots and shoes. (Patented by Charles Denton Abel.)
Helson, Jean Baptiste -	3145	29th Nov. 1866	Construction and manufacture of railway wheels called "disc wheels," formed from one piece or mass of iron or steel. (Patented by William Brookes.)
HELY, ALFRED AUGUSTUS -	958	4th April 1866	Improvements in hydrostatic presses and in the mode or method of working the same.
HEMINGWAY, EDWARD	1685	25th June 1866	Improvements in looms for weaving Dutch carpets by power, and in the manufacture of such fabrics.
Henderson, Constantine -	1544	4th June 1866	Girders manufactured in iron, steel or otherwise, combined with timber.
Henderson, George	2857	13th Sept. 1866	Improvements in hydraulic gas chandeliers, and in gas regulators applicable thereto and to other gas-burners or meters.
Henderson, Thomas	2130	20th Aug. 1866	Material used for beds of horses and other animals.
Henderson, Thomas	2829	1st Nov. 1866	Sewing machines.
HENRICI, OLAUS, PH. D	913	29th March 1866	Construction of bridges, arches and roofs.
Henry, Alexander	8442	31st Dec. 1866	Fire-arms.
HENRY, CHARLES PHILIPPE	1663	22nd June 1866	Paving roads, streets, yards or other similar ways or surfaces.
HENRY, MICHAEL	151	16th Jan. 1866	Printing woven fabrics and other materials or substances. (Communicated by Antoine Alexandre Peluz.)
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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HENRY, MICHAEL	469	14th Feb. 1866	Improvements in photography and in the process of producing printing surfaces and other like surfaces by the aid of photographic agency. (Communicated by the Chevalier Henry Avet.)
HENRY, MICHAEL	677	6th March 1866	Fire-arms. (Communicated by Pierre Joseph Jarre.)
Henry, Michael	838	21st March 1866	Improvements in nautical instruments, and other instruments or apparatus of precision, for use at sea. (Communicated by Jacques Augustin Normand.)
HENRY, MICHAEL ·	968	4th April 1866	Apparatus for cutting cork. (Communicated by Louis Sauvan.)
HENRY, MICHAEL	1323	8th May 1866	Sewing-machines. (Communicated by Joseph Reimann.)
HENRY, MICHAEL	1777	4th July 1866	Governors. (Communicated by Léon Foucault.)
HENRY, MICHAEL	3886	19th Dec. 1866	Improvements in centrifugal pumps, and in the joints or junctions of pipes and tubes. (Communicated by Louis Coignard.)
Henshall, John	1715	27th June 1866	Certain improvements in machinery or apparatus for cutting files.
Henton, Charles John -	620	lst March 1866	Rotary brushes and apparatus for brushing, currying or dressing the skin or hair of animals, or hides.
Henton, Samuel	620	lst March 1866	Rotary brushes and apparatus for brushing, currying or dressing the skin or hair of animals, or hides.
Henwood, Charles Frederic	1486	28th May 1866	Ships' rudders and parts connected therewith.
HEPPEL, JOHN MORTIMER -	2484	21st Sept. 1866	Improvements in fluid meters, also applicable to pumps and water pressure engines.
HEPTONSTALL, CHARLES -	1790	6th July 1866	Looms for weaving stays and similar un- even fabrics.
Herlöv, Andreas	839	21st March 1866	Rotary steam-engines. (Patented by William Edward Newton.)
Hermann, August	8176	3rd Dec. 1866	Improved apparatus for discharging bilge water from vessels' holds.
HERMANT, REGIS FIDÈLE -	2270	4th Sept. 1866	An improved rotary steam-engine. (Patented by George White.)
Herrmann, Ignaz	2447	24th Sept. 1866	Chronometers or other time-keepers.
Hersee, William	278	29th Jan. 1866	Manufacture of printed floor cloths, oil cloths, table covers and other similar fabrics.
Hervey, James	2129	18th Aug. 1866	Improved machinery or apparatus for the manufacture of paper bags.
Hervier, Michel	1955	28th July 1866	Apparatus for regulating the supply of water and other fluids to steam-boilers and other receptacles. (Patented by Charles Denton Abel.)
HESPENHEIDE, WILLIAM -	2944	10th Nov. 1866	File cutting machines. (Patented by John Henry Johnson.)
Hrss, Charles	1806	10th July 1866	A convertible piano and music stool. (Patented by John Millward.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HEURTEBISE, ALEXANDRE [PAUL VICTOR.	3448	31st Dec. 1866	Improvements in the manufacture of hydrogen gas and in apparatus for the same, also in the application of the said gas for lighting and heating, and as a motive-power. (Patented by William Clark.)
Heussen, Edward	1858	16th July 1866	An improved travelling bag.
Hewes, Joseph	1808	10th July 1866	Arranging and working steam-engine valves.
112 (12)		look buly 1000	(Patented by Stewart Clark.)
HEWETT, GEORGE	985	5th April 1866	Improvements in the treatment of grain and raw spirit, and in the apparatus employed therein:
HEWITT, FRANCIS	1498	29th May 1866	Improvements in rudders and stern-posts, and in connecting the same, so as to allow of the ready shipping and unshipping of the rudder from the deck.
Heyns, Patrick	3272	13th Dec. 1866	Steam-boilers.
HEYWOOD, HARVEY	8122	27th Nov. 1866	Furnaces and steam-boilers.
Heywood, John Kay	2906	8th Nov. 1866	Machinery and cutters for making bungs and taps for barrels and other utensils.
Hibbert, William	169	18th Jan. 1866	Combination of chemical matters and mechanical apparatus applied therewith, for the prevention or cure of contagious and other diseases to which human beings and animals are subject.
HIBBERT, WILLIAM	339	3rd Feb. 1866	An improved mechanical valve respirator.
Ніск, Јони	609	28th Feb. 1866	An improved clip for fastening leather or other tips to billiard cues.
HICKLING, WILLIAM EDWIN -	2573	6th Oct. 1866	Improved machinery or apparatus for washing bottles.
Hickling, William Edwin -	3 191	4th Dec. 1866	Improvements in machinery or apparatus for the prevention of collisions and other accidents on railways, and for generally promoting increased safety in railway travelling.
Higgin, James	897	27th March 1866	Dyeing and printing textile fabrics and varns.
Higginbottom, John	805	19th March 1866	Construction of brushes for polishing paper prepared for the manufacture of paper hangings.
Higgins, James	407	9th Feb. 1866	Manufacture of rings for the "ring and traveller" system of spinning or twisting fibrous materials.
Higley, Aaron	2898	7th Nov. 1866	An improved brake for railway carriages. (Patented by George Haseltine.)
Higson, Richard Edwin -	387	8th Feb. 1866	Certain improvements in the ornamentation of silk and satin fabrics.
Hill, Asa	2900	7th Nov. 1866	An improved process for producing pictures, ornamental designs, letters and other characters or figures on and in marble and other calcareous stones. (Patented by George Haseltine.)
HILL, CALEB THOMAS	1477	28th May 1866	Manufacture of rolls for rolling metals.
HILL, CHARLES GREY	597	27th Feb. 1866	Machinery or apparatus for cutting lace fabrics to make them into bonnet or cap fronts.

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Name of Pate	ntee.			Number of Patent.	Date.		Subject-matter of Patent.
CHARLES G1	REY	•	-	656	3rd March	1866	Improvements in ornamenting lace fabrics, and in the machinery or apparatus em- ployed therein.
Charles Jo	HN	•	-	2609	9th Oct.	1866	Machinery or apparatus for the production of reduced copies of medallions and matrices, and for preparing the cutting tools for that purpose.
DAVID -	-	-	-	522	20th Feb.	1866	Trusses.
George	-	-	-	522	20th Feb.	1866	Trusses.
Henry -	-	-	-	1681	23rd June	1866	Working, governing or locking of railway signals and switches.
William	-	-	•	602	•		A new or improved apparatus for the use of smokers, parts of which apparatus are applicable to the securing or holding together of cigarette and other papers, as well as securing or connecting together straps and bands.
William	•	-	-	936	2nd April	1866	Machinery for dressing and polishing yarn, thread, twine, cords or ropes.
FRANK CL	ARKE	-	-	1969	31st July	1866	Manufacture of oxalic acid.
LIFFE, GEOI	RGE	•	•	238			A machine for "saving" or covering the lists or edges of fabrics.
LIFFE, WIL	LIAM	-	-	2737	23rd Oct.	1866	Construction of travelling ovens. (Patented by George Haseltine.)
EY, EDMUN	d Sai	MUE	L -	2902	7th Nov.	1866	Improvements in slide valves and governors of steam and other engines, and in apparatus connected therewith.
haw, Georg	g e	-	-	930	31st March	1866	Certain improvements in the construction of safes and other similar depositories.
on, Robert	-	-	-	927			An improvement in aërated waters.
ey, Jonas	•	-	-	948	3rd April	1866	A new knitting machine. (Patented by Charles Albert Shaw.)
, James	•	-	•	1439	22nd May	1866	Lamps for burning petroleum oil and other volatile liquid hydro-carbons.
, James	•	-	-	1930	25th July	1866	Lamps for burning petroleum oil and other volatile liquid hydro-carbons.
, Јоверн	•	-	-	1439	22nd May	1866	Lamps for burning petroleum oil and other volatile liquid hydro-carbons.
, Joseph	•	-	-	1980			Lamps for burning petroleum oil and other volatile liquid hydro-carbons.
ale, Charli	в Сн	AUN	CEY	1121	20th April	1866	Manufacture of sheet iron. (Patented by George Haseltine.)
n, Frederi	C	•	-	799	17th March	h 1866	Safes or receptacles for containing and securing valuable property.
HENRY WII	LLIAB	4 -	-	1514	31st May	1866	Improvements in the construction of parts of ships and other vessels, and in the mode or method of using or employing such parts as a means of saving life at sea and for other purposes.
h, Herman	N	-	-	17	3rd Jan.	1866	Screw propellers.
·		-	-	29			Improvements in the combustion of fuel and in the furnaces and apparatus employed therein.
iins, Henry	? -	•	-	2935	10th Nov.	1866	Machinery for cutting or dressing stone for building purposes, and for moulding and turning same for architectural purposes.
	CHARLES GO CHARLES JO DAVID - GEORGE HENRY- WILLIAM FRANK CL. LIFFE, GEO LIFFE, WILL EY, EDMUN HAW, GEORG ON, ROBERT EY, JONAS , JAMES , JAMES , JOSEPH ALE, CHARLI N, FREDERI HENRY WILL H, HERMAN CKS, JAMES	GEORGE - HENRY WILLIAM - FRANK CLARKE LIFFE, GEORGE LIFFE, WILLIAM EY, EDMUND SAN HAW, GEORGE ON, ROBERT - EY, JONAS - JAMES - JAMES - JOSEPH - JOSEPH - ALE, CHARLES CH	CHARLES GREY - CHARLES JOHN - CHARLES JOHN - GEORGE HENRY WILLIAM FRANK CLARKE - LIFFE, GEORGE - LIFFE, WILLIAM - EY, EDMUND SAMUE HAW, GEORGE - ON, ROBERT EY, JONAS JAMES JAMES JOSEPH ALE, CHARLES CHAUN N, FREDERIC - HENRY WILLIAM - H, HERMANN - CKS, JAMES H, HERMANN - CKS, JAMES CKS, JAMES CKS, JAMES CKS, JAMES	CHARLES GREY CHARLES JOHN CHARLES JOHN GEORGE HENRY WILLIAM FRANK CLARKE - LIFFE, GEORGE LIFFE, WILLIAM EY, EDMUND SAMUEL - HAW, GEORGE ON, ROBERT EY, JONAS JAMES JAMES JAMES JOSEPH LIFFE CHARLES CHAUNCEY N, FREDERIC HENRY WILLIAM H, HERMANN CKS, JAMES	Name of Patentee. of Patent. CHARLES GREY - 656 CHARLES JOHN - 2609 DAVID 522 GEORGE - 522 HENRY 1681 WILLIAM 602 WILLIAM 936 LIFFE, GEORGE - 238 LIFFE, WILLIAM - 2737 EY, EDMUND SAMUEL - 2902 HAW, GEORGE - 930 ON, ROBERT - 927 EY, JONAS 948 , JAMES 1930 , JAMES 1930 ALE, CHARLES CHAUNCEY HENRY WILLIAM - 1514 H, HERMANN - 17 CKS, JAMES 199	Name of Patentee. Patent. Date. CHARLES GREY 656 3rd March CHARLES JOHN 2609 9th Oct. DAVID 522 20th Feb. GEORGE 522 20th Feb. 23rd June WILLIAM 602 27th Feb. WILLIAM 602 27th Feb. WILLIAM 936 2nd April LIFFE, GEORGE 238 24th Jan. LIFFE, WILLIAM 2787 23rd Oct. EY, EDMUND SAMUEL - 2902 7th Nov. HAW, GEORGE 930 31st March ON, ROBERT 927 31st March ON, ROBERT 948 3rd April JAMES 1439 22nd May JOSEPH 1930 25th July ALE, CHARLES CHAUNCEY 1121 20th April N, FREDERIC - 799 17th March HENRY WILLIAM - 1514 31st May H, HERMANN - 17 3rd Jan. 20th Jan. 4th Jan.	Name of Patentee. of Patent. Date. CHARLES GREY 656 3rd March 1866 CHARLES JOHN 2809 9th Oct. 1866 DAVID 522 20th Feb. 1866 GEORGE 522 20th Feb. 1866 1681 HENRY 1681 23rd June 1866 WILLIAM 602 27th Feb. 1866 WILLIAM 1969 31st July 1866 LIFFE, GEORGE 238 24th Jan. 1866 LIFFE, WILLIAM 2787 23rd Oct. 1866 ALEY, EDMUND SAMUEL - 2902 7th Nov. 1866 HAW, GEORGE - 930 31st March 1866 ON, ROBERT - 927 31st March 1866 ALEY, JONAS - 948 3rd April 1866 AJAMES - 1930 25th July 1866 AJAMES - 1930 25th July 1866 ALE, CHARLES CHAUNCEY 1121 ALE, CHARLES CHAUNCEY 1121

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Name of Patentec.	Number of Patent.	Date.	Subject-matter of Patent.
Нітон, Јонн	2050	9th Aug. 1866	Certain improvements in jacquard machines.
HOARD, CHARLES B	2806	30th Oct. 1866	Certain improvements in machinery for spinning, doubling and twisting wool and other fibrous materials. (Patented by Alfred Vincent Newton.)
Hoare, William	2045	8th Aug. 1866	Improved apparatus for damping direction and other labels.
Hobbs, William	1819	11th July 1866	Improvements in ordnance whereby they are rendered more portable, and in carriages for transporting the same.
Hobson, Henry	1784	29th June 1866	Improvements in smelting iron ores and in apparatus used with blast furnaces.
Hochappel, George	1088	18th April 1866	Pipes for smoking tobacco. (Patented by George White.)
HOCHAPFEL, JEAN	1088	18th April 1866	Pipes for smoking tobacco. (Patented by George White.)
Hodd, Stephen Allen	1756	2nd July 1866	Apparatus for roasting coffee.
HODGE, PAUL RAPSEY	2 525	1st Oct. 1866	Certain improvements in apparatus for the filtration of fluids.
Hodges, Edwin Charles -	2996	15th Nov. 1866	Construction of breech-loading fire-arms.
Hodges, James	57	8th Jan. 1866	Machinery used for raising and treating peat or bog earth or soil.
Hodges, Richard Edward -	1620	14th June 1866	Rulers.
Hodgkinson, William -	221	23rd Jan. 1866	Improvements in the manufacture of fabrics in bobbin net or twist lace machinery, and in the means or apparatus employed therein.
Hodgson, Christopher -	2311	8th Sept. 1866	Weighing machines and indicators.
Hoe, Richard March	81	10th Jan. 1866	Shears or scissors. (Patented by William Edward Newton.)
Hoby, Thomas	3296	15th Dec. 1866	Arrangements and apparatus for measuring and controlling the supply of water for closets and general uses, and for the deoderisation, removal and utilisation of excrementary matters.
Hoffbauer, Auguste	846	22nd March 1866	Jacquard looms for weaving cut pile fabrics double. (Patented by Charles Denton Abel.)
Hoppman, John William -	1198	27th April 1866	Fountains.
Hoppman, John William -	1205	28th April 1866	1
Hoffman, John William -	1465	25th May 1866	1
Hoppman, John William -	1944	26th July 1866	An apparatus for lowering and raising window-blinds, curtains, maps and the like.
Hoffman; John William -	2018	6th Aug. 1866	Metallic mirrors.
Hoffman, John William -	2097	15th Aug. 1866	Communication between the guard and passengers or any other persons in a rail-way carriage or train.
Hoppman, John William -	2098	15th Aug. 1866	A pickle piercer.
Hoffman, John William -	2099	15th Aug. 1866	Kites.
Hoffmann, Frederick	2799	30th Oct. 1866	Improvements in grinding, crushing or reducing dry substances, and in the apparatus or means employed therein or in connection therewith. (Patented by Hermann Wedekind.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HOFMANN, PANAJOTA WIL-	1016	9th April 1866	Separating sulphur from soda waste.
Hofmann, Panajota Wil- [Helm, Ph. D.	2593	8th Oct. 1866	Separating sulphur from soda waste. (Patented by George Tomlinson Bousfield.)
Hoglen, George Washing- [Ton.	1086	12th April 1866	An improved machine for cutting tobacco for chewing and smoking. (Patented by George Haseltine.)
Hognoul, Paschal Joseph -	2927	10th Nov. 1866	An improved apparatus for pumping or ventilating. (Patented by Henri Adrien Bonneville.)
Holdcroft, William	129	15th Jan. 1866	Improved self-acting jiggers, lathes and wheels for potters' use and other purposes.
Holden, Edward	1182	27th April 1866	Means or apparatus for effecting the ven- tilation of rooms and other places.
Holden, Edward Pilkington	201	22nd Jan. 1866	Certain improvements in carding-engines.
Holden, James John	2827	31st Oct. 1866	Doors or closures of gas retorts.
Holden, Richard	2822	31st Oct. 1866	Looms for weaving.
Holdforth, Joseph	2854	3rd Nov. 1866	An improved pill making machine.
Holding, Joseph	465	14th Feb. 1866	Certain improvements in looms for weaving.
Holiday, Richard	3068	22nd Nov. 1866	Distance signals on railways.
Holland, Henry	2089	8th Aug. 1866	Manufacture of umbrellas and parasols.
Holland, John	3122	27th Nov. 1866	Furnaces and steam-boilers.
Holland, Thomas Eccles -	2894	7th Nov. 1866	Certain improvements in apparatus for rendering the security of safes and other depositories more effectual.
Holland, Walter	1963	30th July 1866	Machinery or apparatus for actuating and regulating railway points and signals.
Holliday, John	341	3rd Feb. 1866	Manufacture of red coloring matter or dye.
Holliday, Read	1340	10th May 1866	Obtaining green coloring matters of various shades for dyeing and printing. (Communicated by Heinrich Minhorst and Friedrich Wilhelm Schultes.)
HOLLINGDRAKE, ROBERT -	2784	23rd Oct. 1866	Certain improvements in the construction of metallic pipes or tubes to be employed for the purposes of heating buildings and for extinguishing fire therein.
Hollinrake, John	1007	9th Ap r il 1866	Moulding pipes, pillars, rollers or other articles of a similar character.
Holliss, Charles Peachey -	1699	26th June 1866	Improved modes of applying packing of elastic or flexible materials to axle-trees, aprings and bearings of railway and other carriages, to rails, chairs and sleepers, and to frames of machines, for isolating them from contact and preventing noise.
Holloway, John	1602	13th June 1866	Buckles or fastenings for braces, belts and bands.
Holly, John	564	23rd Feb. 1866	Railway brakes.
Holly, John	2111	16th Aug. 1866	Railway brakes.
Holman, Stephen	2842	2nd Nov. 1866	Pumps and pump air vessels.
Ноімев, Јони	1097	19th April 1866	Fastenings of the metallic hoops or bands employed in baling cotton and other sub- stances.
Holmes, John	1708	27th June 1866	Machinery for combing wool and other fibrous substances.

Name of Patentee.	Number	Date.	Subject-matter of Patent.
	Patent.		
Holmes, Samuel	867	6th Feb. 186	Manufacture of printing ink.
Holmes, Samuel	1737	29th June 186	66 Manufacture of printing ink.
Holmes, Willam Cart- [wright.	2271	4th Sept. 186	Apparatus for the distillation of paraffine and petroleum or other hydro-carbon oils.
Holness, Stephen	2661	15th Oct. 186	Mode or means of rotating brushes or other articles for which a circular or revolving motion is required.
Holt, Charles Herbert -	826	2nd Feb. 186	Obtaining adhesion of the driving wheels of locomotive engines to the rails of railways.
HOLT, THOMAS	1375	14th May 180	66 Construction of steam-boilers.
Homer, George Wood	1438	22nd May 186	Improvements in breaking, pulverizing or scarifying land, and in apparatus employed for such purpose.
HONDT, CHARLES D'	1791	6th July 186	66 Looms for weaving.
Hook, Charles	3126	27th Nov. 186	
Hooker, John	130	15th Jan. 186	Manufacture of ammoniacal and ammoniated soap.
Hooper, Nicholas Bunning	188	20th Jan. 186	Improved machinery for pressing and ironing hat bodies. (Patented by William Edward Newton.)
HOOPER, RICHARD	1892	21st July 186	66 Certain improvements in furnaces.
Hope, John Graham	1261	4th May 180	An improved composition for destroying vermin on sheep and other animals, and for preserving them therefrom.
Hope, John Graham	1274	4th May 186	An improved composition for destroying vermin on sheep and other animals, and for preserving them therefrom.
Hope, William	2540	3rd Oct. 180	An improved composition to be substituted for ordinary paints.
HOPKINS, ABEDNEGO DAVID -	2785	29th Oct. 186	66 Construction of sewing-machines.
Hopkins, Evan	227	23rd Jan. 186	An improved mode of correcting the devia- tion of compasses in iron ships, and of constructing ships' compasses.
HOPKINS, MESHAC	2785	29th Oct. 186	66 Construction of sewing-machines.
Hopkinson, John	2176	24th Aug. 186	,
Hopkinson, John	3268	13th Dec. 186	Machinery for dressing slates.
HOPKINSON, WILLIAM	1708	27th June 186	Machinery for combing wool and other fibrous substances.
Hopkinson, William	3251	10th Dec. 186	fibrous substances.
Hopkinson, William	3255	11th Dec. 186	sheep shears.
Hopps, George Henry	1638	16th June 186	(Communicated by George Kitteridge.)
Hopson, Ogin Lewis	2714	20th Oct. 186	Machinery for compressing, rounding or pointing wires or rods, to form pins, needles or other articles of metal.
Hopwood, James	1558	6th June 186	66 Certain improvements in looms for weaving.
Horby, Thomas	2717	20th Oct. 186	
Hornsby, Richard	1788	29th June 180	
Hornsby, Richard	2528	29th Sept. 186	1 -
Horsley, Thomas	2914	8th Nov. 186	66 Core bars or barrels.

Name of Patentce. Number of Patent. Date. HORSTMANN, FREDRICH Gus- 752 13th March 1866 New or in	Subject-matter of Patent.
HORSTMANN, FREDRICH GUS- 752 13th March 1866 New or in	
[TAV ADOLPH. motive-the self	nproved mechanism for obtaining power, particularly applicable for winding of clocks, time pieces, er machinery requiring winding.
TAV ADOLPH. motive- for wind mechani houses,	or improved mode of obtaining power, which power can be used ling clocks, time pieces and other ism, and also for ventilating hot- green houses, and all buildings uniform temperature is desirable.
	movements for clocks. ted by James Theodore Griffin.)
produci	mprovements in the method of ng metallic tubes, pipes or other hollow articles.
currente	batteries for keeping up constant s of electricity for railway train and electric telegraphic purposes.
	pistons and stuffing-boxes. sumicated by Jones Saunders.)
Hosking, Albert Whitford 648 3rd March 1866 An impro	oved apparatus or detector for ng safes secure from burglary.
Hosking, Albert Whitford 2256 3rd Sept. 1866 An impro	oved apparatus or detector for ag safes secure from burglary.
HOSKING, ALBERT WHITFORD 3287 14th Dec. 1866 Certain in	mprovements in facilitating com- tion between passengers and guard
HOTCHKISS, TRUMAN 3480 29th Dec. 1866 Nautical le (Pateni	ogs. ted by Alfred Brewster Ely.)
HOUGET, JULIEN DÉSIRÉ - 1288 5th May 1866 Machinery	y or apparatus for washing wool. ted by John Henry Johnson.)
HOUSE, HENRY ALONZO - 1779 5th July 1866 Sewing ma	
HOUSE, JAMES ALFORD 1779 5th July 1866 Sewing me	
HOUZEAU, JULES 2926 10th Nov. 1866 An improproved	wed manure obtained by an im- process of purifying foul waters. ted by Henri Adrien Bonneville.)
fire-arm	nents in breech-loading and other is, and in bayonets for the same. ted by Stephen Amos Main.)
the use lamps li fed by camphin	perfect immunity from danger in of parafine, camphine and other iable hitherto to explode, whether rock oil, crystal oil, parafine, ne, belmontine or other com- e carbonaceous oils.
reaper.	oved construction of self-raking suricated by James Shorkley Marsh.)
1 1 1	ved manufacture of elastic seat.
Howard, James 228 23rd Jan. 1866 Construction	ion of steam-boilers.
HOWARD, JAMES 1192 27th April 1866 An improvement	ved mode of working steam tilling ents.
1	ion of steam-boilers.
Howard, James 8050 20th Nov. 1866 Construct	

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Howard, James	8868	21st Dec. 1866	Construction of mowing and reaping machines. (Communicated by James Shorkley Marsh.)
Howard, John	1219	30th April 1866	Improvements in screw cutting and threading machines, and in the construction of screw nails and spikes. (Patented by Charles Douglas Fox.)
Howarth, William	808	31st Jan. 1866	Certain improvements in looms for weaving.
Howarth, William	3254	11th Dec. 1866	Looms for weaving.
Howden, James	270	27th Jan. 1866	Means of and apparatus for steering, manœuvering and propelling ships or vessels.
Howe, Amaba Benib	1874	18th July 1866	An improvement in sewing machinery. (Patented by Nahum Salamon.)
Howe, Elias, jun	1798	7th July 1866	Sewing machines. (Patented by William Clark.)
Howe, Elias, jun ^e	2630	11th Oct. 1866	Sewing-machines. (Patented by Alfred Vincent Newton.)
Howell, Edward	3318	17th Dec. 1866	Construction of horse rakes.
Howell, John	2845	2nd Nov. 1866	Hay and chaff cutting machines.
Howie, James	2850	13th Sept. 1866	Certain improvements in machinery or apparatus to be employed in cutting textile fabrics.
Howitt, William	962	4th April 1866	Construction of the roofs of horticultural and other buildings and structures.
Hubbard, John Page	1947	26th July 1866	Sewing-machines.
Hubert, François Thierry -	1725	28th June 1866	Construction of general electric telegraphic machines and the mode of working them.
Huch, Edward Heinson -	1146	23rd April 1866	Engines worked by steam or other fluid.
Huckvale, Thomas	8858	20th Dec. 1866	Apparatus for cleaning knives.
HUDDART, GEORGE AUGUSTUS	2781	27th Oct. 1866	Improvements in buttons and in the attachment of buttons to garments and fabrics.
HUDSON, RICHARD HARVEY -	2217	28th Aug. 1866	Preventing the fouling by and clearing ships' propellers from ropes.
Hudson, Thomas Smith -	1683	23rd June 1866	Certain new and useful improvements in machinery for printing surfaces or cancelling revenue or other stamps.
Hudson, William	674	6th March 1866	An improved composition or preparation for sizing cotton, linen or woollen yarns, and other similar substances.
Huggett, John	426	10th Feb. 1866	Improvements in the manufacture of horse nails and in apparatus employed therein.
Hughes, —	566	23rd Feb. 1866	Arranging and working steam-engine valves. (Patented by Peter Kerr.)
Hughes, Edward	8139	29th Nov. 1866	Machinery or apparatus for exhausting and forcing air and gases, and for propelling vessels.
Hughes, Edward Thomas -	476	15th Feb. 1866	Improved mechanism for working apparatus for hoisting and pressing. (Communicated by Dennis Frisbee.)
Hughes, Edward Thomas -	719	9th March 1866	Pumps. (Communicated by Asher Burr.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Hughes, Edward Thomas -	720	9th March 1866	Weighing scales. (Communicated by Daniel Hand Wilcox.)
Hughes, Edward Thomas -	926	31st March 1866	Leather splitting machines. (Communicated by Amzi Hancen Van Gieson.)
Hughes, Edward Thomas -	997	7th April 1866	Revolving fire-arms. (Communicated by James Benjamin Doo- little and George Otis Dowing.)
Hughes, Edward Thomas -	1117	20th April 1866	Manufacture of boots and shoes. (Communicated by Antoine Guérin.)
Hughes, Edward Thomas -	2114	17th Aug. 1866	The application of chlorine for the condensation of nitrous gas, and improvements in the apparatus connected therewith. (Communicated by Charles Large.)
Hughes, Edward Thomas -	2224	29th Aug. 1866	Repeating fire-arms. (Communicated by Oliver Fisher Win- chester.)
Hughes, Edward Thomas -	2306	8th Sept. 1866	Water-power engines. (Communicated by William Lonsdale and William Peete.)
Hughes, Edward Thomas -	2602	9th Oct. 1866	Filtering presses for expressing the liquid parts and retaining the solid parts of any semi-liquid substances. (Communicated by Pierre du Rieux and Edouard Roettger.)
Hughes, Edward Thomas -	2640	12th Oct. 1866	An improved system of spinning the silk from the cocoons of silk worms, and for the machinery or apparatus employed therein. (Communicated by Jean Meille.)
Hughes, Edward Thomas -	3146	30th Nov. 1866	A new or improved mode of saccharatifica- tion of sugary substances. (Communicated by Dr. Frederick Jüne- mann, Pierre du Rieux and Edouard Roettger.)
Hughes, Hesketh	2985	Nov. 1866	Improvements in the manufacture of tubes and other articles, and in the apparatus employed therein.
Hughes, John	1129	21st April 1866	Grates for furnaces and fire-places. (Patented by Alfred Vincent Newton.)
Hughes, Richard Hugh -	1229	1st May 1866	Improvements in or connected with lamps and burners, and an improved apparatus for lighting lamps.
Humber, James	1741	30th June 1866	An improved material for covering rollers used in the various processes of making cotton, linen and other yarns.
Humphrey, William	2887	7th Nov. 1866	Furnaces for steam-boilers.
Humphreys, Henry Temple	723	9th March 1866	Reflecting optical instruments.
Humphrys, Edward	2998	15th Nov. 1866	Machinery used in propelling vessels.
Hunt, Edmund	1667	22nd June 1866	Dissolving or treating rubber, gutta-percha, copal and similar gums or resins, and their compounds.
Нимт, Јонм	707	8th March 1866	Improved arrangement of mechanism for washing and separating ores.
Нинт, Јони	1587	11th June 1866	Safes or receptacles for valuable property.
HUNT, THOMAS	1861	11th May 1866	Breech-loading fire-arms.
Hunt, Thomas	2878	6th Nov. 1866	Breech-loading fire-arms.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Hunter, Adam	. 8044	20th Nov. 1866	An improved mode of ascertaining the true position of such vessels as have foundered at sea, and improvements in the apparatus or means connected therewith.
Hunter, George	- 438	12th Feb. 1866	Improvements in machinery used in cutting stone, slate and other minerals, and in forming tunnels, galleries and roads.
Hunter, George	- 2192	25th Aug. 1866.	Machinery and tools for cutting slate, stone, marble and other minerals.
Hunter, James	- 2797	30th Oct. 1866	Machinery or apparatus to be used for excavating and mining.
HUNTER, WILLIAM -	- 2495	25th Sept. 1866	Machinery for untwisting, separating and combing tarred ropes for oakum, and for dressing hemp, flax, manilla, jute or other like material.
HUNTINGTON, THOMAS -	- 2261	3rd Sept. 1866	A new and useful improvement for detaching boats from their davits. (Patented by Henri Adrien Bonneville.)
HUNTLEY, CHARLES -	- 739	10th March 1866	Cricket balls, racket, tennis and foot balls.
HURIAUX, HIPPOLYTE -	- 119	13th Jan. 1866	An improvement in spring tops. (Patented by Richard Archibald Brooman.)
Hurst, John Witherden	- 3013	17th Nov. 1866	Method of placing, stowing and employing life rafts on board ship.
Hutchinson, Hiram -	- 72	9th Jan. 1866	Manufacture of fabrics suitable for covering furniture, for carpets, window curtains, linings for carriages and other like purposes. (Communicated by Thomas Allen Jenckes.)
HUTCHINSON, WILLIAM -	- 780	15th March 1866	Machinery for beetling woven fabrics.
HUTTON, THOMAS	- 195	20th Jan. 1866	Improvements in submarine telegraph cables, and in submerging and raising submarine telegraph cables.
HUTTON, THOMAS	- 1208	28th April 1866	Improved apparatus for closing the tap holes of casks or barrels.
Huxley, Edward	- 2885	7th Nov. 1866	The improved manufacture of coverlets, rugs, quilts or covers for beds, and certain articles of wearing-apparel, and as a stuffing for cushions and pillows.
HUZZEY, HENRY ALFRED	- 1142	23rd April 1866	Improved apparatus for ejecting water from the holds of steam ships or other vessels.
Hyde, John Moore -	- 2151	22nd Aug. 1866	A new or improved method of constructing armour-plated ships and vessels.
Hyles, Edwin	- 3292	15th Dec. 1866	Apparatus for the manufacture of crucibles and other hollow articles from plastic materials.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
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Ilwham, James Mc	141	16th Jan. 1866	Winding apparatus.
Ilwham, James Mc	514	19th Feb. 1866	Improvements in and relating to fence, gate and telegraph posts.
ILWHAM, JAMES Mc	2060	10th Aug. 1866	Improvements in making moulds for casting ground screws for fence and other posts, and in apparatus therefor.
ILWRAITH, WALTER Mc	1316	8th May 1866	Apparatus for coating wagon covers and other fabrics and materials.
Imhop, Daniel	2516	29th Sept. 1866	Improvements in the machinery of chimes, applicable also to organs.
Imray, John	1785	29th June 1866	Carriage windows and other sliding frames.
Imray, John	2428	21st Sept. 1866	Water supply.
IMRAY, John	3319	17th Dec. 1866	Cable stoppers.
Ince, Thomas Henry	2882	6th Nov. 1866	Fire-arms.
INCE, WILLIAM	1245	2nd May 1866	An improvement in umbrellas.
Ingamells, Jesse	1851	14th July 1866	Machinery or apparatus for obtaining and applying motive-power.
Ingé, Eugène Henre Désiré	2042	8th Aug. 1866	Mode of applying covers or awnings to garden and other similar seats, which improvements are also applicable to awnings or covers for other purposes. (Communicated by Adolphe Laumeau.)
Ingham, William	979	5th April 1866	Apparatus for fleshing and shaving hides and skins of animals, in the raw, tanned or dressed state.
Inglis, Alexander Binny -	646	3rd March 1866	Improvements in the annealing of metallic plates and in the apparatus or means employed therefor.
Ingram, James	2953	12th Nov. 1866	Apparatus for testing the lubricity of oils and other lubricants.
Ingram, Jenkin Jones	1584	9th June 1866	Valves for regulating feed, suction and other purposes.
Ingram, John	296	30th Jan. 1866	Apparatus for embossing in colours on paper, envelopes or other articles.
Iniff, Samuel	586	26th Feb866	Apparatus for registering the number of passengers entering omnibuses and other carriages, which apparatus is also applicable to registering the number of persons passing through barriers of theatres, ferry gates, workshops and other places.
IRELAND, JONATHAN	78	10th Jan. 1866	An improved turntable and weighing machine combined.
Ireland, William	1308	8th May 1866	Improved apparatus for draining or drying steam previous to its employment for working steam-engines or for other purposes. (Communicated by August Heinrich Cornelius Bachmann.)
Irion, Andrew	8282	13th Dec. 1866	An improved scrubbing machine. (Patented by William Robert Lake.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Ironmonger, Thomas -	865	23rd March 1866	Packing for packing pistons and for other like purposes.
IRVINE, ROBERT	1885	19th July 1866	Treatment of certain residues in order to obtain fatty acids therefrom.
IRVINE, ROBERT	2218	28th Aug. 1866	Treating and purifying water.
Irwin, John	128	15th Jan. 1866	Railway signals.
ISAACS, DAVID VAN GELDER	1574	7th June 1866	Drilling machines. (Patented by William Edward Newton.)
Isherwood, James Claren- Ldon Ramsbottom.		21st Aug. 1866	Improvements in breech-loading fire-arms and in cartridges for the same.
Ivers, Thomas	1799	9th July 1866	Construction of shuttle tongues.

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Jackson, Edwin	3268	12th Dec. 1866	Machinery or apparatus for combing wool or other fibrous substances.
JACKSON, JAMES	- 2879	17th Sept. 1866	Construction of ships' anchors.
Jackson, James	2880	lst Nov. 1866	Apparatus for lowering and "letting-go" ships' anchors.
Jackson, John	- , 87	5th Jan. 1866	Mills for grinding corn and other grain.
Jackson, John	847	22nd March 1866	Breech-loading fire-arms.
Jackson, John	1234	lst May 1866	Night lights.
Jackson, John	- 1744	30th June 1866	Lamps.
Jackson, John William	- 8416	29th Dec. 1866	Certain improvements in "governors" or regulators for steam or other motive-power engines.
JACKSON, MICHAEL -	- 179	19th Jan. 1866	Manufacture of umbrellas.
JACKSON, SAMUEL	- 87	5th Jan. 1866	Mills for grinding corn and other grain.
JACKSON, WILLIAM -	2014	4th Aug. 1866	A new soufflating accumulating pump or hydraulic engine.
Jacobs, Samuel	3369	21st Dec. 1866	An improved process for preparing wood and other materials preparatory to ornamenting or graining the same, and also for finishing materials so prepared when ornamented or grained, and for finishing wood and other materials when painted or grained but not prepared by the said process.
JAEGER, ADOLPHE ANTOINE	- 904	28th March 1866	A new process for obtaining aniline yellow.
JAEGER, ADOLPHE ANTOINE	- 968	5th April 1866	A new process for obtaining aniline red.
JAGGER, JOHN	- 1436	22nd May 1866	Heddles or healds for weaving.
Jakins, Stephen	- 741	12th March 1866	Improved means of preventing the smoking of chimnies and flues, and for the curing of smoky chimnies and flues, and for preventing down draught of chimnies and flues.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
James, Christopher Retal- [lick.	2677	17th Oct. 1866	Improvements in stamps, hammers, and apparatus connected therewith, actuated by steam, compressed air or other aëriform fluid, the said improvements being applicable to various purposes where percussive force is employed. (Patented by John Garrett Tongue.)
James, Henry Benson	. 1044	14th Ap ri l 1866	Improved adhesive compositions for attaching copper or other sheathing to iron, wood or other ships or vessels.
James, Isaac	1448	23rd May 1866	An improved clod-crusher.
Jamison, John P	1821	11th July 1866	Improved machinery for crimping leather for boot fronts. (Patented by Alfred Vincent Newton.)
Jammes, Etienne	1394	16th May 1866	Lamps for burning mineral and other oils. (Patented by William Clark.)
JAPPA, HADJI	2764	26th Oct. 1866	Making moulds for casting metals. (Patented by John Fisher.)
JARRE, PIERRE JOSEPH	677	6th March 1866	Fire-arms. (Patented by Michael Henry.)
Jasper, Gustavus Adolphus	1366	12th May 1866	A new or improved process of cleansing animal black or bone charcoal, after or before its use for the purpose of filtering a saccharine syrup.
JAUBERT, LEON	478	14th Feb. 1866	Optical instruments. (Patented by Henry Edward Newton.)
JAUMENNE, AUGUSTE	1053	13th April 1866	An improved process for purifying animal and vegetable oils, and all other kinds of oils except mineral oils.
JAY, WILLIAM CHICKALL -	206	22nd Jan. 1866	Ladies' dresses.
Jefferson, Cornelius	1052	13th April 1866	Machinery for combing wool or other fibrous materials.
Jepperson, Joseph	1052	13th April 1866	Machinery for combing wool or other fibrous materials.
Jefferson, Lazarus	1052	13th April 1866	Machinery for combing wool or other fibrous materials.
Jefferson, Mordecai	1052	13th April 1866	Machinery for combing wool or other fibrous materials.
JEFFRIES, WILLIAM	202	22nd Jan. 1866	Puddling furnaces and heating furnaces, and other reverberatory furnaces used in the manufacture of iron and steel.
JENCKES, THOMAS ALLEN -	72	9th Jan. 1866	Manufacture of fabrics suitable for covering furniture, for carpets, window curtains, linings for carriages and for other like purposes. (Patented by Hiram Hutchinson.)
JENCES, GEORGE LYNDEN -	2017	4th Aug. 1866	1
JENKIN, FLEMING	1218	30th April 1866	Improvements in apparatus for winding in telegraphic cables, applicable also when winding in other ropes or chains.
JENKS, BARTON HOWARD -	1937	25th July 1866	Improvements in dyeing and hardening dyed woods, and also in preparing wood to be used in the manufacture of the cylinders of carding-engines. (Patented by William Edward Newton.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent,
JENES, BARTON HOWARD -	2215	28th Aug. 1866	An improved mode of preventing oxidation of lead balls in fixed ammunition. (Patented by William Edward Newton.)
JENES, BARTON HOWARD -	2231	29th Aug. 1866	Breech-loading fire-arms. (Patented by William Edward Newton.)
Jenks, Thomas	817	lst Feb. 1866	A new or improved method of manufacturing those kinds of ornamental metallic chains known as "Brazilian" or "snake" and other like patterns, and in machinery or apparatus to be employed therefor.
JENNINGS, FRANCIS MONT- [GOMERY.	588	26th Feb. 1866	Preparation of flax, hemp, china grass, jute or other fibrous substances of a similar nature.
JENNINGS, JOSIAH GEORGE -	2183	24th Aug. 1866	Waterclosets, urinals and taps.
Jennings, Mathew	1057	14th April 1866	Improved machinery for kneading, com- pressing, moulding or forming clay or other plastic substances, into bricks, tiles, pipes or other useful or ornamental articles.
Jennings, Russell	32	4th Jan. 1866	Improvements in the manufacture of augers and in the tools or instruments to be used in such manufacture. (Patented by William Edward Newton.)
JERRAM, GEORGE BASTALL -	. 2476	25th Sept. 1866	Improvements in furnaces and in the method and apparatus for supplying such furnaces with fuel or other combustible matters.
JESSOP, JOSEPH	754	13th March 1866	Doors or covers of safes, strong rooms and other receptacles of property, and parts surrounding such doors or covers.
JEWSBURY, JOSEPH	1127	21st April 1866	An improved portable sun dial.
JEYES, OLIVER WELDON -	800	17th March 1866	An improvement in the manufacture of ice to fit it for making effervescing drinks.
Josson, Robert	344	3rd Feb. 1866	Improvements in moulding articles of clay, earthenware or porcelain, and in apparatus used therein.
Jobson, Robert	1843	13th July 1866	Apparatus for holding suspended electric telegraph wires.
Johnson, Albert Francis -	182	15th Jan. 1866	Machinery for sewing.
Johnson, Albert Francis -	2490	26th Sept. 1866	Machinery or apparatus for the cutting of files or the formation or making of their teeth.
Johnson, Benjamin	977	5th April 1866	Pianofortes.
Johnson, Cuthbert Green- [wood.	122	13th Jan. 1866	Machinery for making bricks, tiles and similar articles.
Johnson, Elisha	2190	25th Aug. 1866	Combing wool and other fibre. (Patented by George Tomlinson Bousfield.)
Johnson, James - '	2831	lst Nov. 1866	Certain improvements in machinery or apparatus for preparing and spinning cotton and other fibrous materials.
Johnson, Job	2171	23rd Aug. 1866	An improvement in submarine rakes for gathering oysters or other articles.
Johnson, John Bagnall -	647	3rd March 1866	The application of a certain material, in combination with improved means and appliances, for the manufacture of tubular and hollow cylindrical bodies where great strength and lightness is required.
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Name of Patentee.		Number of Patent.	Date.	Subject-matter of Patent.	
JOHNSON, JOHN BAGNALL	-	901	27th March 1866	Certain improvements in gun barrels, nance, whole or in parts, tubes, at and other cylindrical bodies.	
Johnson, John Bagnall	-	1221	30th April 1866	Manufacture of hollow projectiles.	
Johnson, John Bagnall		2006	3rd Aug. 1866	Improved means and appliances for manufacture of tubular and hollow c drical bodies where great strength lightness is required.	ylin
Johnson, John Henry	-	65	9th Jan. 1866	A new or improved detergent to be use the washing or cleansing of wool. (Communicated by Charles Dyonise I feld.)	
Johnson, John Henry	-	204	22nd Jan. 1866	Improvements in reaping-machines, post which improvements are also applied to mowing-machines. (Communicated by Edward Frant Fossey.)	cab
Johnson, John Henry	•	256	26th Jan. 1866	Construction of steam vessels. (Communicated by Henry Randall.)	
Johnson, John Henry		268	26th Jan. 1866	Apparatus for lubricating purposes. (Communicated by Arthur Lewis Gallo.)	I
Johnson, John Henry	-	884	2nd Feb. 1866	Springs for ladies' skirts and similar poses.	pw
Johnson, John Henry	•	408	9th Feb. 1866	(Communicated by Jules Libert.) Spinning and drawing rollers. (Communicated by Henry Hall, The Finlay and Isaac Schlichter.)	0386
Johnson, John Henry	•	591	26th Feb. 1866	Construction of roads and streets. (Communicated by Lucien Boilley.)	
Johnson, John Henry	•	789	16th March 1866	Breech-loading fire-arms. (Communicated by Christian Sharps Horace Edward Dimick.)	.an
Johnson, John Henry	•	925	31st March 1866	Bleaching books, engravings, paper, co and other similar articles and substan (Communicated by Justin Henry Davi	1 CO
Johnson, John Henry	• •	960	4th April 1866	Treatment of sugar. (Communicated by François Joseph C vin and Frederic Mathurin Légal younger.)	
Johnson John Henry	•	983	5th April 1866	Production of white or of semi-transpe glass. (Communicated by Dr. Hugo Kunhein	
Johnson, John Henry	-	1014	9th April 1866	Apparatus for the treatment of certain and oily substances in order to ob products therefrom. (Communicated by Henri Edouard Ren	fati
Johnson, John Henry	-	1078	16th April 1866	Apparatus for sifting flour and other stances. (Communicated by Joseph Wells.)	
Johnson, John Henry	اِ	1074	16th April 1866	Card-cases. (Communicated by François Auguste montagne.)	L
Johnson, John Henry	-	1115	20th April 866	Improvements in covering or protecting mouths of bottles, jars and similar retacles, and in capsules employed them (Communicated by Jean Hyppolite Larreux and Edouard Gendrot.)	ece ein

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Name of Patentee.		Number of Patent.	Date.		Subject-matter of Patent.
Johnson, John Henry	-	1220	30th April	1866	Percussive musical instruments. (Communicated by Victor Mustel.)
Johnson, John Henry	•	1275	4th May	1866	Improvements in apparatus for lacing boots and shoes, gaiters and other articles of dress, and in the mode of attaching the same. (Communicated by William Henry Shurtleff and Charles Henry Church.)
Johnson, John Henry	•	1288	5th May	1866	Machinery or apparatus for washing wool. (Communicated by Julien Désiré Houget and Charles Teston.)
Johnson, John Henry	-	1811	8th May	1866	Improvements in apparatus for propelling and steering ships, partly applicable to the transmission of motive-power. (Communicated by Jean Pierre Victor Le Rouge.)
Johnson, John Henry	-	1826	9th May	1866	Machinery or apparatus for drying and cooling grain, applicable also to the manufacture of malt. (Communicated by James Foley.)
Johnson, John Henry	•	1876	14th May	1866	Self-acting fire-alarms. (Communicated by Charles Dion.)
Johnson, John Henry	-	1485	28th May	1866	An improved composition for journal boxes or bearings. (Communicated by William Kinnear.)
Johnson, John Henry	•	1521	31st May	1866	Improvements in the transmission of electric telegraphic despatches and in the apparatus employed therein. (Communicated by Jean Joseph Etienne Lenoir.)
Johnson, John Henry	-	1522	31st May	1866	Improvements in the deodourizing of crude rock or mineral oil, and in the preparation of lubricating oil therefrom. (Communicated by James Mott and George Cowles.)
Johnson, John Henry	-	1554	5th June	1866	Machinery or apparatus for making envelopes and paper bags. (Communicated by Robert Parks and John Armstrong.)
Johnson, John Henry	-	1724	28th June	1866	Machinery or apparatus for cleaning and decorticating pulse, grain and seeds. (Communicated by Eugéne Pierre Barrabé.)
Johnson, John Henry -	-	1789	29th June	1866	Improvements in brick-making machines and in the machinery or apparatus for operating the same. (Communicated by Isaac Gregg.)
Johnson, John Henry -	•	1759	2nd July	1866	Apparatus for lubricating purposes. (Communicated by Arthur Lewis Le Gallo.
Johnson, John Henry -	-	1916	23rd July	1866	Grate bars for furnaces and fire-places. (Communicated by William McMonnies.)
Johnson, John Henry -	-	1995	2nd Aug.	1866	A new or improved implement for the use of boot and shoe makers. (Communicated by David Henry Barber and George Mellen Wells.)
Johnson, John Henry -	•	2007	3rd Aug.	1866	Improvements in the mode of securing corks and stoppers in the necks or mouths of bottles, jars and other vessels. (Communicated by Arthur Barbarin.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Johnson, John Henry -	- 2024	6th Aug. 1866	Machinery or apparatus for stamping, crush ing and pulverising ores and other hard substances, parts of which improvement are applicable to power hammers. (Communicated by William Wright.)
Johnson, John Henry -	- 2118	17th Aug. 1866	An improved stuffing for mattresses, chair seats and other like purposes. (Communicated by Henry Almanzor Alden.
Johnson, John Henry -	- 2137	20th Aug. 1866	Obtaining motive-power. (Communicated by Jean Baptiste Dubreus and Camille Bernard.)
Johnson, John Henry -	- 2219	28th Aug. 1866	Improvements in railway breaks, parts o which improvements are applicable a shaft couplings. (Communicated by Victor Amédee Gellée.)
Johnson, John Henry -	- 2240	30th Aug. 1866	An improved pavement for roads, street: and other thoroughfares. (Communicated by Charles Sebille.)
Johnson, John Henry -	- 2299	7th Sept. 1866	Improvements in hats or coverings for the head, parts of which improvements are applicable to parasols and fans. (Communicated by William Henry White.
Johnson, John Henry -	- 2329	. 10th Sept. 1866	Electric telegraph conductors. (Communicated by John Montgomery Batchelder.)
Johnson, John Henry -	2365	14th Sept. 1866	Machinery or apparatus for cutting frets in metal or other substances. (Communicated by Madame Henriette Delong.)
Johnson, John Henry -	- 2386	17th Sept. 1866	Machinery or apparatus for the manufacture of bricks, tiles and other similar articles. (Communicated by François Durand.)
Johnson, John Henry -	- 2485	26th Sept. 1866	Taps or cocks for water and other fluids. (Communicated by William Moodie.)
Johnson, John Henry -	_ 2509	28th Sept. 1866	Railway switches. (Communicated by Benjamin Shiverick and Thomas Luther Calkins.)
Johnson, John Henry -	_ 2559	4th Oct. 1866	Grate bars. (Communicated by Samuel Harrison.)
Johnson, John Henry -	_ 2587	8th Oct. 1866	An improved mode of treating stale bread and biscuits, with a view to restoring their freshness. (Communicated by Charles Vitoux and Alfred Braconnier.)
Johnson, John Henry -	- 2724	22nd Oct. 1866	Propelling and steering ships and vessels. (Communicated by John Stanworth Martin and John Frederick Droop.)
Johnson, John Henry -	- 2728	23rd Oct. 1866	Machines for making paper. (Communicated by Richard Smith and Oliver Ellsworth.)
Johnson, John Henry -	- 2790	29th Oct. 1866	An improved metallic band fastener. (Communicated by Arthur Barbarin.)
Johnson, John Henry -	2791	29th Oct. 1866	Preparation of iodide of ethyl and of other organic iodides. (Communicated by James Alfred Wanklyn.
Johnson, John Henry -	- 2798	30th Oct. 1866	Improvements in the treatment and preser vation of grain, pulse, seeds and flour or meal, and in the apparatus or means employed therein. (Communicated by Wilhelm Ramann.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
JOHNSON, JOHN HENRY	2828	1st Nov. 1866	Lamps. (Communicated by Aaron Calhoun Vaughan and Robert Wallace Park.)
Johnson, John Henry	2874	6th Nov. 1866	Improvements in rolling metals, and in the machinery or apparatus employed therein. (Communicated by Hippolyte Ulysse Petin and Jean Marie Gaudet.)
Johnson, John Henry	2921	9th Nov. 1866	Fastenings or couplings. (Communicated by Emile Elie Thiercelin.)
Johnson, John Henry	2943	10th Nov. 1866	Improvements in the manufacture of chains, and in the machinery or apparatus employed therein. (Communicated by Josiah Copley, the younger.)
Johnson, John Henry	2944	10th Nov. 1866	File cutting machines. (Communicated by Henry Comer, William Hespenheide and Samuel Rose.)
Johnson, John Henry	3007	16th Nov. 1866	Coverings for floors. (Communicated by James Hawthorne Spencer.)
Johnson, John Henry	3071	22nd Nov. 1866	Machinery or apparatus for raising, lowering moving or transporting heavy bodies. (Communicated by Charles Le Blanc.)
Johnson, John Henry	8115	27th Nov. 1866	Improvements in woollen and other yarr or twisted strands, and in the machiner or apparatus employed in treating the same. (Communicated by Edward Tucker Coope Lutton.)
Johnson, John Henry	8443	31st Dec. 1866	Improved means of and apparatus for ad vertising. (Communicated by Justin Dubreuil and Camille Barnard.)
Johnson, John Robert -	2448	22nd Sept. 1866	Waterproofing leather, canvas and other fabrics.
Johnson, William Beckett	3096	24th Nov. 1866	Arranging and driving the shafting of loom sheds."
Johnston, James	70	9th Jan. 1866	Apparatus and process for distilling oils an other liquids. (Patented by James Marius Macrum.)
Johnston, James	1046	13th April 1866	Apparatus and processes for tanning. (Patented by James Marius Macrum.)
Johnston, Thomas -	877	24th March 1866	Arranging or combining the wheels and trams or ways for carriages on common roads.
Johnstone, John Stuart -	2508	28th Sept. 1866	An improved means for producing motive power, and the machinery or apparatu employed therefor.
Jolly, Frederic	780	15th March 1866	Machinery for beetling woven fabrics.
Jones, Charles	2708	19th Oct. 1866	Coal mining machinery.
JONES, DAVID	207	22nd Jan. 1866	Bolts for doors and other purposes.
Jones, David	254	25th Jan. 1866	Window-fastenings.
Jones, George David	313	lst Feb. 1866	A new and improved construction of pock for male or female attire, whereby the property contained therein is rendere secure from theft or accidental loss.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Jones, George Henry	1556	5th June 1866	Improved machinery for gumming and printing envelopes and wrappers for letters, newspapers and small parcels. (Patented by William Edward Newton.)
Jones, Gilbert Daniel -	3408	28th Dec. 1866	An improved drying apparatus. (Patented by Alfred Vincent Newton.)
Jones, Harry	2635	11th Oct. 1866	An improved portable bath.
Jones, Henry	2156	22nd Aug. 1866	An improved process for bleaching with the aid of hydrostatic and pneumatic pressure conjointly or separately, wood, straw and other fibrous material for the manufacture of paper pulp, and for bleaching flax, hemp, thread, yarns, felts, cloths and other fibrous and textile materials. (Patented by George Haseltine.)
Jones, Henry Anwyl	2117	17th Aug. 1866	An improved construction of bale fastening. (Patented by Alfred Vincent Newton.)
Jones, James	241	24th Jan. 1866	Machinery for crushing and pulverising ores and other hard substances.
Jones, James Grafton	1091	18th April 1866	Machinery employed in cutting and getting coals and other minerals.
JONES, JOHN	861	6th Feb. 1866	An improved method of and means for suspending or supporting trousers and other like garments, from the person.
Jones, John Allcock	1327	9th May 1866	Manufacturing of non-conducting substances for impeding the passage of heat.
Jones, John Thomas	395	8th Feb. 1866	Improvements in the manufacture of hats and in apparatus employed therein. (Patented by Samuel Bruckshaw Simon.)
Jones, Moss	1546	4th June 1866	Method of and apparatus for fitting artificial teeth and retaining them in position. (Patented by Maurice Cohen Rogers.)
JONES, RALPH AUGUSTINE -	818	20th March 1866	An improved fire-escape.
JONES, RICHARD BOLTON -	3094	24th Nov. 1866	Apparatus for transmitting and recording messages or signals.
Jones, Thomas	3264	12th Dec. 1866	Improvements applicable to window sashes and frames.
Jordan, John	1059	14th April 1866	Improvements applicable to steam-boilers.
JORDAN, JOHN	1714	27th June 1866	The application of certain spirituous compounds for the production of motive-power.
Jordan, Thomas Brown -	3395	26th Dec. 1866	Machinery for applying hydraulic power to mining and other purposes.
Josse, Gustave	2987	10th Nov. 1866	Ornamenting and producing certain figured and embossed surfaces for various useful purposes.
JOUBLIN, EDOUARD VICTOR [JULES.	3259	11th Dec. 1866	An improved mode of and apparatus for cleaning the outer surfaces of steamboiler tubes. (Patented by William Edward Newton.)
Joy, DAVID	2515	29th Sept. 1866	Steam-engines.
JUDKINS, CHARLES TIOT -	2053	9th Aug. 1866	Sewing machines.
Julius, Charles Theodore -	1536	2nd June 1866	An improvement in the construction of anchors.
Jönemann, Dr. Frederic -	3146	30th Nov. 1866	A new or improved mode of saccharatifica- tion of sugary substances. (Patented by Edward Thomas Hughes.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Junod, Victor Theodore -	414	10th Feb. 1866	Vacuum apparatus employed for the cure or relief of inflammatory diseases.
JUSTICE, PHILIP SYNG	872	24th March 1866	An improved construction of power hammer. (Patented by Alfred Vincent Newton.)
JUSTICE, WILLIAM	268	27th Jan. 1866	Improvements in softening fibrous materials, and in the machinery or apparatus con- nected therewith.
Justice, William	1848	14th July 1866	Motive-power engines. •

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KABERRY, LEONARD	758	13th March 1866	Machinery for preparing fibrous materials, commonly called slubbing, intermediate
		,	and roving frames.
KAHNT, FREDERIC -	1742	30th June 1866	Manufacturing of cutlery handles and machinery employed therein.
KARNES, ABRAHAM	275	27th Jan. 1866	Machinery for crushing quartz ores and other substances. (Patented by August Bryant Childs.)
KASELOWSKY, FERDINAND [WILHELM.	2564	4th Oct. 1866	Machinery for separating the woody part from the fibre of flax, hemp or other fibrous substances of the same nature.
Kaulbach, Reinhold Edward	182	20th Jan. 1866	The improvement of the wheels of carriages, waggons, trucks and other rolling stock in use on railways, excepting those of breaks and locomotive engines, whereby the traction power of the latter is relatively greatly increased.
Kaulbach, Reinhold Edward	1068	16th April 1866	The improvement of the means of and apparatus for laying submarine electrical telegraphic wires, lines, cables or other contrivances of a like sort.
KRATS, WILLIAM	1964	30th July 1866	Machinery and apparatus for the manufacture of boots and shoes and other coverings for the feet.
KRENE, GEORGE	2402	19th Sept. 1866	An improved sausage making and mincing machine.
Keighley, George	52	8th Jan. 1866	Certain improvements in looms for weaving.
Keighley, George	792	17th March 1866	Construction of safes.
Keighley, George	1237	2nd May 1866	Looms for weaving.
Keighley, John	2820	31st Oct. 1866	Looms for weaving.
KEIRBY, JOHN EDWIN	2064	11th Aug. 1866	Packing for steam, water, air and gas tight joints.
Kelly, Samuel William -	453	13th Feb. 1866	Manufacture of rails, bars and girders.
KEMBLE, JOHN	30 00	15th Nov. 1866	Apparatus for marking or impressing railway and other tickets.
Kendall, Charles	996	7th April 1866	Atmospheric railway breaks and communications.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Palent.
Kennan, James	1025	10th April 1866	An improved bung-turning lathe.
Kennedy, Joseph	156	17th Jan. 1866	Certain improvements in railway breaks.
KENNEDY, THOMAS -	520	20th Feb. 1866	Water meters.
Kennedy, Thomas, jun	1711	27th June 1966	Pistons and cylinders.
KENNEDY, THOMAS STUART	2807	30th Oct. 1866	An improved mode of covering metal rollers used in the manufacture of flax, hemp, jute, silk and other fibrous substances, with leather.
Kenney, Andrew, Mc -	2928	10th Nov. 1866	Coffee-hullers. (Patented by Henri Adrien Bonneville.)
Kent, James Talbot -	- 3275	13th Dec. 1866	Taps or cocks for drawing off liquids.
Kenzie, George Mc -	- 769	15th March 1866	Obtaining illuminating gas and oil.
Kenzie, James Farquhar [son, Mc		23rd July 1866	Producing and super-heating steam. (Patented by George Tomlinson Bousfield.)
Kenzie, John Mc	1963	30th July 1866	Machinery or apparatus for actuating and regulating railway points and signals.
Kerpoot, John	- 3119	27th Nov. 1866	Mules for spinning and doubling cotton and other fibrous substances.
KERE, PRTER	. 566	23rd Feb. 1866	Arranging and working steam-engine valves. (Communicated by Messrs. Hughes and Phillips.)
Kerr, Peter	2868	5th Nov. 1866	Machinery for polishing threads and yarns.
KERR, THOMAS KNOX -	. 2367	14th Sept. 1866	. Winding apparatus.
Kerridge, James	. 55	8th Jan. 1866	Improved machinery for assorting grain and seeds.
Kershaw, John	. 159	17th Jan. 1866	Machinery or apparatus for warping and making leashes in warps, for tape sizing machines.
Kershaw, John Thomas	. 2915	9th Nov. 1866	An improved ventilator.
Kershaw, Thomas -	. 2905	8th Nov. 1866	Certain improvements in that portion of a loom that is employed in "taking up" the cloth.
Kessler, Heinrich -	2680	17th Oct. 1866	An improved self-acting lubricator for the cylinders and slide boxes of locomotives and other steam-engines.
KEUX, WILLIAM PETER LE	- 595	27th Feb. 1866	Detonating and light signals for railways and other uses.
KEYSTON, JOHN	2371	15th Sept. 1866	An improved material or substance to be used instead of whalebone, in the manufacture of whips, whip-handles, riding and walking-sticks and such like articles.
KIDD, JOHN HOWARD -	- 2712	20th Oct. 1866	Improvements in floor, leather, brattice, oil and other cloths, and in their manufacture.
Kidd, Joshua	- 513	17th Feb. 1866	Improvements in carburetting low pressure superheated steam, air or coal gas for lighting and heating purposes, for generating steam or hydro-carbon vapour, and in apparatus employed therein.
KILBY, SAMUBL	- 1609	13th June 1866	Thrashing machines.
KILDAL, JOHAN	- 2008	3rd Aug. 1866	Apparatus to be used for fishing. (Patented by Wilhelm Hendrik Klerck Mack.)
KILVERT, NICHOLAS -	- 2008	3rd Aug. 1866	Certain improvements in machinery or apparatus for amalgamating, purifying, cooling and bleaching lard or other similar materials.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Kimball, Alonzo	1908	23rd July 1866	Sewing-machines.
King, Charles Joseph [Berry.	1080	17th April 1866	A new unfermented beverage.
King, Frederick John -	100	12th Jan. 1866	Preserving potatoes.
King, Henry	816	20th March 1866	Construction of coffer dams.
King, John Thomson	1466	25th May 1866	An improved machine for the manufacture of augers, bits, drills and like tools and articles. (Communicated by William Watson Grief
KINNBAR, WILLIAM	1485	28th May 1866	and Robert H. Boyd.) An improved composition for journal boxe or bearings. (Patented by John Henry Johnson.)
Kinstry, Samuel Mc	808	19th March 1866	Machinery for preparing, spinning and twist ing flax, cotton, wool and other fibrou substances.
Kirby, Thomas	1170	26th April 1866	Apparatus or machinery for raising and lower ing revolving shutters.
Kirk, Alexander Carnegie	461	14th Feb. 1866	Improved arrangements and apparatus for distilling.
Kirk, Alexander Carnegie	2723	22nd Oct. 1866	Steam dredgers.
Kirk, Peter	2895	7th Nov. 1866	Certain improvements in machinery or apparatus for rolling metals.
KIRKALDY, DAVID	3018	17th Nov. 1866	An improved instrument for ascertaining correct measurements.
Kirkham, George Byron -	2181	24th Aug. 1866	Improvements in organs, pianofortes an melodeons, which improvements are als applicable to other musical instrument having or employing key-boards. (Patented by William Edward Newton.)
Kirkham, Thomas Nesham -	824	20th March 1866	Apparatus for scouring, washing, bleaching dyeing and drying fibrous materials in the raw and manufactured state.
KIRKWOOD, DAVID	3302	15th Dec. 1866	Breech-loading fire-arms.
Kitchen, Johnson	2302	7th Sept. 1866	An improved railway break.
Kitchen, Johnson	3077	23rd Nov. 1866	An improved railway break, a portion of the apparatus of which can also be em- ployed as a means of communication between the guard and driver of a railwaterin.
KITCHEN, WILLIAM	2302	7th Sept. 1866	An improved railway break.
Kitchen, William	3077	23rd Nov. 1866	An improved railway break, a portion of the apparatus of which can also be em- ployed as a means of communication between the guard and driver of a railway train.
KITTERIDGE, GEORGE	1638	16th June 1866	Improvements applicable to locks. (Patented by George Henry Hopps.)
KITTOE, GEORGE DOMINICUS -	1601	13th June 1866	Steam-engines.
KLEIN, WILLIAM FREDERIC [BENHARD.	2305	7th Sept. 1866	Construction of roller skates. (Communicated by Leopold Burmeister.)
KLOTZ, MARC	144	16th Jan. 1866	Toy arms and projectiles.
KNAGGS, WALTER	1623	14th June 1866	Improvements in the manufacture of sugrand in the apparatus employed therein.
KNAPP, HENRY FRANCIS -	474	14th Feb. 1866	Machinery for making collars, cuffs, wrisbands and other similar articles of dress (Patented by William Edward Newton.)

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Name of Patentee.		Number of Patent.	Date.	Subject-matter of Patent.
KNAPTON, CHARLES DEMA	IN-	1747	30th June 1866	Spinning frames.
KNIGHT, EDWARD HENRY	•	8052	20th Nov. 1866	Governors.
Knight, Joseph	-	1540	2nd June 1866	Self-acting railway signals.
KNIGHTON, GEORGE -	-	2914	8th Nov. 1866	Core bars or barrels.
Knowles, Hazard -	-	2117	17th Aug. 1866	An improved construction of bale fastening. (Patented by Alfred Vincent Newton.)
Knowles, Mark	-	2258	3rd Sept. 1866	Certain improvements in looms for weaving carpets and other pile fabrics, part of which improvements are applicable to other looms for weaving fancy fabrics.
Knox, Henry	-	2282	5th Sept. 1866	Signalling an alarm from railway carriages when in motion.
Kochs, Edward	-	918	29th March 1866	Construction of bridges, arches and roofs.
Kochs, William Edward		1923	24th July 1866	Constructing of railway carriages.
Kochs, William Edward	•	1939	26th July 1866	Steam slide valves for locomotive, marine and general steam-engines, and water valves.
Kohn, Ferdinand -	•	8187	4th Dec. 1866	An improved machine for cutting sugar cane. (Communicated by Frederick James Vivian Minchin.)
Koppel, Ludwig	-	1198	20th April 1866	An improved mode of and apparatus for pre- serving milk and cream, more especially designed for keeping milk fresh during transport.
Korshunoff, Nicholas	•	2940	10th Nov. 1866	Improvements in the manufacture and casting of malleable iron and steel, and in furnaces and apparatus employed in the said manufacture, part of which improvements in apparatus is applicable to other purposes.
Kossuth, Francis -	-	449	13th Feb. 1866	Production of copper or other metallic plates for the purpose of printing therefrom. (Patented by Charles Gilpin, M.P.)
Kossuth, Louis Theodor	E -	449	13th Feb. 1866	Production of copper or other metallic plates for the purpose of printing therefrom. (Patented by Charles Gilpin, M.P.)
KRUTZSCH, WILLIAM -	-	2205	27th Aug. 1866	Improvements in the construction and com- bination of breech-loading and repeating fire-arms and ordnance, and in the cart- ridges for use in the same.
KRASINSKI, COUNT LOUIS	-	8212	6th Dec. 1866	Treatment of ores of metals of which the sulphates are soluble in water.
Kühne, Adolph	-	2107	16th Aug. 1866	Improvements in the purification of water, and in the disinfection and preservation of putrescent and putrescible matters. (Communicated by Dr. Willy Kühne.)
Köhne, Dr. Willy -	-	2107	16th Aug. 1866	Improvements in the purification of water, and in the disinfection and preservation of putrescent and putrescible matters. (Patented by Adolph Kühne.)
Kunheim, Hugo, Dr	-	988	5th April 1866	Production of white or of semi-transparent glass. (Patented by John Henry Johnson.)
Kunstmann, Robert -	-	1794	7th July 1866	Improvements in burning and drying bricks, pottery, earthenware, clay, lime and coment, and in the apparatus employed therein.

Name of Pateutee.	Number of Patent.	Date.	Subject-matter of Patent.
Kuntsmann, Robert	2458	24th Sept. 1866	Improvements in drying solid substances, and in the apparatus or means employed therein.
K ⁰ P, Ferdinand	188	15th Jan. 1866	Gas-burners. (Patented by George White.)
KURZ, FREDERICK WILLIAM -	1597	12th June 1866	Construction of locks.
Kurz, Frederick William -	1598	12th June 1866	Construction of safes or strong rooms.

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LA GAUTRAYE, AUGUSTUS DE	2245	31st Aug.	1866	An improved method for the preservation of wood.
				(Communicated by Monsieur Manne. (Annatole).)
La Moile, Fortuné	8144	29th Nov.	1866	Incubators and apparatus for rearing young chickens.
LA PENOTIÈRE, WILLIAM -	2520	29th Sept.	1866	Certain improvements in fire-arms.
LA RUE, WARREN DE	1248	2nd May	1866	Manufacture of iron and steel.
LA RUE, WARREN DE	1881	15th May	1866	Treating the residues of pyrites usually called burned ores.
LA RUE, WARREN DE	1383	15th May	1866	Treating printers' rags.
Labarre, Pierre	2700	18th Oct.	1866	Improved arrangements of apparatus for storing or holding petroleum and other inflammable liquids. (Patented by Clinton Edgcumbe Brooman.)
LABAT, PIERRE	8005	16th Nov.	1866	Method of and apparatus for stopping or closing vessels. (Patented by George Davies.)
LABAT, PIERRE	8006	16th Nov.	1866	Inkstands. (Patented by George Davies.)
LACY, DANIEL BAKER	2430	21st Sept.	1866	An improved construction of weight. (Patented by Alfred Vincent Newton.)
LACY, ISAAC AUGUSTUS	2480	21st Sept.	1866	An improved construction of weight. (Patented by Alfred Vincent Newton.)
LACY, THOMAS THOMPSON -	2480	21st Sept.	1866	An improved construction of weight. (Patented by Alfred Vincent Newton.)
LAGARRIGUE, JEAN JOSEPH [LOUIS MARIE.	1875	18th July	1866	A new or improved mode of actuating or working the points or crossings of rail- ways, so as to dispense with pointsmen.
Lagrèze, Guillaume, otherwise [Elièze.	2946	10th Nov.	1866	Breech-loading fire-arms and cartridges. (Patented by William Clark.)
Lahore, Jean Baptiste -	2145	21st Aug.	1866	Improvements in the mode of and apparatus for the distillation, rectification and disinfection of mineral or vegetable oils, applicable also to the purification and rectification of fatty and other products of such oils. (Patented by William Edward Newton.)
Laidley, Theodore Thad- [deus Sobrieski.	578	24th Feb.	1866	Breech loading fire-arms. (Patented by William Edward Newton.)

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	Name of Patentee.		Number of Patent.	Date.		Subject-matter of Patent.
La	dley, Thomas	-	443	13th Feb.	1866	Cartridges for breech loading fire-arms. (Patented by William Robert Lake.)
LA	erd, William Cumming	-	3098	24th Nov.	1866	A new or improved detergent material applicable to the cleansing of wool and other fibrous substances, and to all purposes where coarse soap is used.
LA	re, Groege De -	•	1098	18th April	1866	Preparation of diphenylamine and analogous substances.
LAI	RE, GEORGE DE -	-	2686	17th Oct.	1866	Manufacture of blue coloring matter. (Patented by Charles Adam Girard.)
LAI	ke, George, jun ^r	-	2659	15th Oct.	1866	Apparatus for sizing cotton warps.
LAI	KB, WILLIAM ROBERT	-	113	13th Jan.	1866	Lamps. (Communicated by Anson Henry Platt.)
Lai	KE, WILLIAM ROBERT	•	114	13th Jan.	1866	The use and application of paper, printed, or otherwise ornamented with water colours, for covering floors and other analogous purposes, as a substitute for carpets and oilcloths, and of an improved coating or varnish to be applied to the same to protect its surface from injury and wear. (Communicated by Anson Henry Platt.)
LA	KE, WILLIAM ROBERT	•	299	31st Jan.	1866	Revolving fire-arms. (Communicated by Charles Mason.)
LAI	e, William Robert	•	800	31st Jan.	1866	Working and treating india-rubber, gutta- percha and other similar gums. (Communicated by Frank Marquard.)
Lai	e, William Robert	-	398	9th Feb.	1866	An improved apparatus or machine for removing the seeds or stones from raisins and other dried fruit. (Communicated by William Emerson Baker.)
Lai	te, William Robert	-	421	10th Feb.	1866	Carriages and castors for sewing machines. (Communicated by Nesbitt De Laney Stoops.)
Lai	KE, WILLIAM ROBERT	-	443	13th Feb.	1866	Cartridges for breech loading fire-arms. (Communicated by Colonel Thomas Laidley.)
LAI	KE, WILLIAM ROBERT	-	. 457	13th Feb.	1866	Vices. (Communicated by Amos Hale Brainard.)
Lai	KE, WILLIAM ROBERT	-	584	21st Feb.	1866	Pocket rules. (Communicated by Benjamin Green Martin.)
Lai	KE, WILLIAM ROBERT	-	585	21st Feb.	1866	Improvements in drills and in chucks for holding and operating the same and similar articles. (Communicated by Stephen Ambrose Marse.)
LAI	KE, WILLIAM ROBERT	-	608	27th Feb.	1866	Weighing machines. (Communicated by George Mayo.)
1	ke, William Robert	-	631	lst March	1866	An improved spike. (Communicated by Lewis Alexander Osborn.)
Lai	KE, WILLIAM ROBERT	•	680	6th March	1866	Machinery for making bolts, rivets, spikes and other similar articles. (Communicated by Lewis Alexander Osborn.)
Lai	KE, WILLIAM ROBERT	-	912	29th March	1866	Looms for weaving. (Communicated by George Crompton.)

Name of Patentee.		Number of Patent.	Date.		Subject-matter of Patent.
LAKE, WILLIAM ROBERT	-	1708	26th June	1866	Manufacture of white lead. (Communicated by William Bell, Thomas Mara Fell and Ambrose George Fell.)
LAKE, WILLIAM ROBERT	-	1710	27th June	1866	Mode of distilling or separating volatile products from oils and other fluids. (Communicated by Hamilton Lamphier Smith.)
LAKE, WILLIAM ROBERT	•	2027	6th Aug.	1866	Steps or foot bearings for spindles. (Communicated by Thomas Marsh and David Fales.)
LAKE, WILLIAM ROBERT	-	2088	7th Aug.	1866	An improved apparatus or machine for removing the seeds or stones from raisins and other dried fruit. (Communicated by William Emerson Baker.)
LAKE, WILLIAM ROBERT	-	2052	9th Aug.	1866	An improved telegraphic cable. (Communicated by Alexander John Bap- tist De Morat.)
LAKE, WILLIAM ROBERT	-	2105	16th Aug.	1866	An improved heating apparatus. (Communicated by Sidney Smith.)
LAKE, WILLIAM ROBERT	-	2393	18th Sept.	1866	Projectiles for fire-arms and ordnance. (Communicated by Samuel Hatt Haycock.)
LAKE, WILLIAM ROBERT	-	2469	25th Sept.	1866	Steam pumps. (Communicated by Oscar Theodore Earle.)
LAKE, WILLIAM ROBERT	-	2548	3rd Oct.	1866	Machinery for cutting files and rasps. (Communicated by Alfred Weed.)
LAKE, WILLIAM ROBERT	-	2549	3rd Oct.	1866	File cutting machinery. (Communicated by Alfred Weed.)
LAKE, WILLIAM ROBERT	•	2666	15th Oct.	1866	An improved apparatus for tapping beer casks and other like vessels containing liquids under pressure. (Communicated by Thomas Marsh.)
LAKE, WILLIAM ROBERT	-	2739	23rd Oct.	1866	Improvements in cartridges and in machinery for manufacturing the same. (Communicated by Timothy James Powers.)
LAKE, WILLIAM ROBERT	-	2990	15th Nov.	1866	Looms for weaving. (Communicated by George Crompton.)
LAKE, WILLIAM ROBERT	-	3073	22nd Nov.	1866	An improved apparatus for tapping beer casks and other like vessels containing liquids under pressure. (Communicated by Thomas Marsh, Stephen Perry and John Balckom.)
LAKE, WILLIAM ROBERT	-	8183	28th Nov.	1866	Manufacture of white lead. (Communicated by William Bell, Thomas Mara Fell and Ambrose George Fell.)
LAKE, WILLIAM ROBERT	•	3282	13th Dec.	1866	An improved scrubbing machine. (Communicated by Andrew Irion.)
LAKE, WILLIAM ROBERT	-	8827	18th Dec.	1866	An improved mode of rendering paint un- inflammable. (Communicated by Joseph Benvhue Harris.)
LAKE, WILLIAM ROBERT	-	3328	18th Dec.	1866	Improvements in nails and in machinery for manufacturing the same. (Communicated by Arlon Man Polsey.)
LAKE, WILLIAM ROBERT	•	8860	20th Dec.	1866	An improved coupling for railway carriages. (Communicated by George Dennis Spooner, John Frederic Fish Hale and Anrel Clement Stiles.)

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Name of Pateusee.	Number of Patent.	Date.	Subject-matter of Patent.	
LAKE, WILLIAM ROBERT -	3361	20th Dec. 186	An improved machine for digging pote also applicable to digging for other poses. (Communicated by William Hodge	pur
Lakin, Robert	2941	10th Nov. 1866	ridge.) Machines for spinning and doubling of	
Lallemand, Joseph	2823	31st Oct. 1866		
Lamb, Ephraim	1990	2nd Aug. 186	(Patented by William Clark.) Improvements in the construction of escapes, such improvements being a able to the construction of apparatuanalogous purposes.	pplic
Lamb, Ephraim	2021	6th Aug. 1866	Construction of fire-escapes.	
Lamb, Ephraim	2022	6th Aug. 186		ke o
Lamb, Ephraim	2200	27th Aug. 186	Improvements in the construction of a ratus for cleaning and polishing boot shoes, such apparatus being also appli to other purposes.	s an
Lamb, Ephraim	2260	3rd Sept. 1866	Fixing the soles and heels of boots shoes.	8.D
Lamontagne, François [Auguste.	1074	16th April 1866	Card-cases. (Patented by John Henry Johnson.)	
Lamoureux, Jean Hyppolite	1115	20th April 1866	Improvements in covering or prote the mouths of bottles, jars and si receptacles, and in capsules emp therein. (Patented by John Henry Johnson.)	mil
Lampson, Henry	2991	15th Nov. 1860		otto
Lancaster, Robert	1605	13th June 1866	A new and improved lock or fastene securing the lids of milk cans, b trunks or other similar receptacles.	
Lancaster, Thomas	234	24th Jan. 1866	Looms for weaving.	
LANE, EDWARD PYNE	2548	3rd Oct. 1866	Reaping-machines.	
Lane, Farindon	3221	6th Dec. 1860	Photographic pressure frames.	
Lane, Joseph James	2730	23rd Oct. 186	Machinery for making wax tapers, com- greases of resinous substances, and ting same into lengths.	posi Cu
Lane, Thomas	1981	25th July 186	Looms for weaving.	
Langdale, Sampson	176	19th Jan. 186	Manufacture of feeding cake for cattle.	
Langdon, Leander	2000	2nd Aug. 186	Churns. (Patented by John Gilbert Avery.)	
Langen, Eugen	434	12th Feb. 186	Gas and air engines. (Patented by Charles Denton Abel.)	
LANGSFORD, HENRY	3132	28th Nov. 186	6 An improved harness, saddle and tugs	•
LANSDELL, HENRY SEAGUR -	1717	27th June 186	Apparatus for raising and forcing and other liquids, applicable to the tion of bilge water from vessels, the of the tanks of locomotive tenders other purposes. (Patented by William Edward Newt	eje fillir san
LANSDELL, HENRY S	1829	12th July 186	Steam pumps. (Patented by William Reade.)	

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LANSDELL, HENRY S	1831	12th July 1866	Improved means of and apparatus for supplying water to the tanks of locomotive engines and tenders. (Patented by William Reade.)
Large, Charles	2114	17th Aug. 1866	The application of chlorine for the condensation of nitrous gas, and improvements in the apparatus connected therewith. (Patented by Edward Thomas Hughes.)
Larivière, Elie	1878	18th July 1866	An improved method of instantly releasing or unharnessing one or more horses from carriages of every description. (Patented by William Edward Gedge.)
LARKIN, HENRY	332	2nd Feb. 1866	Manufacture of paper by the employment of a fibre not bitherto used in this manufacture.
LARKIN, RICHARD	729	9th March 1866	Means or apparatus for obtaining light by the combustion of magnesium.
LARNAUDÈS, VICTOR	642	3rd March 1866	A new or improved chemical mixture to be used as a disinfecting and preserving fluid, for the cure of disease among cattle and for other purposes.
LAROCHE, WILLIAM SYLVESTER	820	20th March 1866	Improved means and apparatus for pro- ducing new effects in photographic por- traiture.
LATOUR, EMILE DE FAGES DE	2599	9th Oct. 1866	An improved funnel. (Patented by William Edward Gedge.)
LATTER, LEONARD	2775	26th Oct. 1866	Brakes for common road carriages.
Laumeau, Adolphe	2042	8th Aug. 1866	Mode of applying covers or awnings to garden and other similar seats, which improvements are also applicable to awnings or covers for other purposes. (Patented by Eugène Henri Désirée Ingé.)
Laurency, Léon Edouard -	1267	4th May 1866	Improvements in railway rolling stock with the object of ensuring the safety of travellers. (Patented by William Edward Gedge.)
Laurent, Gilbert Amable -	2423	21st Sept. 1866	Machinery for stopping or retarding railway trains and preventing accidents on railways.
LAURENT, JEAN BAPTISTE [BERNARD CHARLES.	1048	13th April 1866	Mills for crushing, grinding and other pur- poses. (Patented by William Clark.)
Lauth, Bernard	1104	19th April 1866	An improvement in the manufacture of bar iron and steel. (Patented by Alfred Vincent Newton.)
Lauth, Charles	3195	5th Dec. 1866	Manufacture of colouring matters. (Patented by Clinton Edgcumbe Brooman.)
LAVATER, MANUEL LEOPOLD [JONAS.	1552	5th June 1866	Improvements in water-closets, urinals, lava- tories and other receivers, and also in taps for supplying liquids to the same.
LAVATER, MANUEL LEOPOLD [JONAS.	1748	30th June 1866	Brackets.
Lavo, Jacob James	1495	29th May 1866	An improved composition for removing incrustations and preventing the formation of the same in steam-boilers. (Patented by George Haseltine.)
Law, James	1112	20th April 1866	Machinery for spinning and doubling.

Name of Patentee.	Number	Date.	Subject-matter of Patent.
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Law, James	1838	13th July 1866	Decolorising the products obtained in the distillation of shale, coal and wood, in cluding tar, for the purposes of dipping, pouring and smearing sheep, and thus preserving the purity of color and the healthy condition of the wool.
Law, James	3121	27th Nov. 1866	Machinery for carding wool and other fibrous substances.
Lawrence, William	1559	6th June 1866	Improvements in the manufacture of malt and in apparatus for drying malt and hops.
LAWRENCE, WILLIAM	1560	6th June 1866	Manufacture of and apparatus for the treatment of worts.
Lawson, John	2462	25th Sept. 1866	Machinery for preparing and spinning flax tow, jute and other fibrous materials.
LAYCOCK, WILLIAM SAMUEL	882	8th Feb. 1866	Looms for weaving a certain kind of cloth or fabric.
Lazonby, Richard Edmund	2626	11th Oct. 1866	Machinery or apparatus for opening and cleaning wool and other fibrous materials (Communicated by Charles G. Sargent.)
Lazonby, Richard Edmund	3070	22nd Nov. 1866	Machinery or apparatus for opening and cleaning fibrous materials. (Communicated by Charles G. Sargent.)
Le Blanc, Charles	3071	22nd Nov. 1866	Machinery or apparatus for raising, lower ing, moving or transporting heavy bodies (Patented by John Henry Johnson.)
Le Gallo, Arthur Lewis -	268	26th Jan. 1866	Apparatus for lubricating purposes. (Patented by John Henry Johnson.)
Le Gallo, Arthur Lewis -	1759	2nd July 1866	Apparatus for lubricating purposes. (Patented by John Henry Johnson.)
Le Guen, Pierre Réné Marie	8066	22nd Nov. 1866	An improved process for combining tung sten with cast-iron by conglomerating reduced wolfram.
Lé Keux, William Peter -	595	27th Feb. 1866	Detonating and light signals for railway and other uses.
LE PAUL, VICTOR DELAYE -	306	31st Jan. 1866	Lamps. (Patented by Henri Adrien Bonneville.)
LE PELLEY, NICHOLAS DAVID	2104	16th Aug. 1866	Rudders for ships and other water craft. (Patented by William Clark.)
LE ROUGE, JEAN PIERRE VIC- [TOR.	1311	8th May 1866	Improvements in apparatus for propellin and steering ships, partly applicable t the transmission of motive-power. (Patented by John Henry Johnson.)
Lea, Alfred - '	1407	18th May 1866	An improved method of and apparatus for preparing and fluting picture and other frames and mouldings. (Communicated by Guilliamimus Politication and John Dalk.)
LEA, HENRY	509	17th Feb. 1866	Looms for weaving.
Lea, Henry	1222	lst May 1866	"
Lea, Henry	1931	25th July 1866	
LEACH, GEORGE	791	17th March 1866	Certain improvements in the construction of fans or blowers. (Patented by Henry Bernoulli Barlow.)
Leach, James	1905	23rd July 1866	Refining paraffine wax.
LEACHMAN, WILLIAM BRAD-[8HAW.	1770	4th July 1866	Improved machinery for manufacturin bricks.

Name of Patentee.						
	Number of Patent.	Date.	Subject-matter of Patent.			
Leak, Elias	547	22nd Feb. 1866	Driving "jiggers," lathes and throwing- wheels used by potters.			
LEAKE, ROBERT	571	24th Feb. 1866	Machinery for engraving and etching rollers and other surfaces.			
LEAKE, ROBERT	1019	10th April 1866	Machinery for engraving and etching rollers and other surfaces.			
LEALAND, PETER HENRY -	581	24th Feb. 1866	Binocular microscopes.			
LEAN, EDWARD MC	3172	3rd Dec. 1866	Pianofortes and harmoniums.			
LEATHER, JOHN HENRY -	2843	2nd Nov. 1866	An "auxiliary smith's fire."			
Leather, John Knowles -	8097	24th Nov. 1866	Manufacture of salts of soda and potash.			
Leather, Samuel	2577	6th Oct. 1866	Manufacture of certain articles of dress or wearing-apparel, such as coats, trousers, vests, jackets, mantles, cloaks, shirts, drawers and similar articles.			
LEBAUDY, ADOLPHE	2252	1st Sept. 1866	An improved solder or composition for joining certain metals, or uniting fractures in certain metals, and for similar uses. (Communicated by Charles Halot.)			
Leclanché, George Lionel	670	5th March 1866	Piles for generating electricity.			
Léclanché, George Lionel	1637	16th June 1866	Voltaic piles.			
LECLANCHÉ, GEORGE LIONEL	2623	10th Oct. 1866	Certain new and useful improvements in electrical apparatus. (Patented by Alexander Horace Brandon.)			
LECOCQ, DON FRANCISCO -	138	15th Jan. 1866	Improvements in the means or method of preserving in a fresh condition animal and vegetable substances, and in the apparatus to be employed therein.			
LECCEUR, EMILE	184	15th Jan. 1866	Circular frames for the manufacture of looped fabrics. (Patented by Richard Archibald Brooman.)			
Lecoq, Jules	1543	2nd June 1866	Improved machinery for combing hemp, flax and other fibrous materials.			
Lee, Alfred	1680	23rd June 1866	Preparing wool or other animal fibrous sub- stances, yarns and woollen fabrics, for dyeing.			
LEE, DAVID THORPE	1579	8th June 1866	Lay figures, dolls and manikins.			
LEE, HENRY WILSON	892	8th Feb. 1866	An improved apparatus for raising water in shower baths. (Patented by John Gilbert Avery.)			
LEE, THOMAS HARTCLIFFE -	2012	4th Aug. 1866	Improvements in the manufacture of flat linked chains, and in the machinery em- ployed in rivetting and swaging the same and other articles.			
LEEDS, EDWARD MONTAGU -	848	3rd Feb. 1866	Securing the hatchways, skylights and other openings of steam and other ships or vessels.			
Lees, Asa	1631	16th June 1866	Machinery for making moulds for casting iron and other metal.			
Lees, Samuel	1593	12th June 1866	Furnaces for consuming petroleum and other hydro-carbons.			
Leetch, James	2279	5th Sept. 1866	Breech-loading fire-arms.			
LEFEBURE, HENRY	2228	29th Aug. 1866	Means or apparatus for balling wool and other fibres. (Patented by William Colborne Brookes.)			
Lepebure, Jean Baptiste -	2228	29th Aug. 1866	Means or apparatus for balling wool and other fibres. (Patented by William Colborne Brookes.)			

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LÉGAL, FREDERIC MATHURIN, [the younger.	960	4th April 1866	Treatment of sugar. (Patented by John Henry Johnson.)
Legendre, Narcisse	551	22nd Feb. 1866	Manufacture of lace, gauze, net or elastic fabrics of that description.
Legendre, Narcisse	987	2nd April 1866	Manufacture of lace, gauze, net or elastic
Legge, Richard Brabason -	1063	14th April 1866	A new or improved mode of printing patterns on dyed silks and all kinds of dyed goods. (Communicated by Pierre Courmons.)
LEIGH, EVAN	1906	23rd July 1866	Machinery or apparatus for cleaning and preparing cotton or other fibrous substances.
Leigh, John	1116	20th April 1866	Purification of coal gas.
Leigh, Robert	2070	13th Aug. 1866	A new or improved direct acting lift or tilt hammer.
Leigh, Thomas Joseph -	1594	12th June 1866	Improvements in the method of burning coals (whether large or small coals), coal dust, coke, coke dust, charcoal, wood and and other combustible substances, as also hydrocarbons and gases, and in the arrangement of the furnaces applicable thereto.
Leighton, Alfred	73	9th Jan. 1866	Improvements in printing and in apparatus employed therein.
LENOIR, JEAN JOSEPH [ETIENNE.	1521	31st May 1866	Improvements in the transmission of electric telegraphic despatches and in the apparatus employed therein. (Patented by John Henry Johnson.)
LEONARDT, FRIEDRICH	3428	29th Dec. 1866	Manufacture of metallic boxes.
Leopold, Charles Francis -	945	3rd April 1866	Braiding and weaving machines. (Patented by George Davies.)
LEPERDRIEL, YVES	8170	3rd Dec. 1866	Fire-places. (Patented by Hector Auguste Dufrené.)
Lepoutre-Pollet, Adolphe Benjamin Albert François [Joseph.	893	27th March 1866	The application of metallic substances upon textile materials in the state of thread. (Patented by William Edward Gedge.)
Lerouge, Pierre	1590	11th June 1866	A new mode of advertising.
LEROY, CHARLES	2068	11th Aug. 1866	Thermometers and pyrometers. (Patented by Baldwin Fulford Weatherdon.)
LERSNER-EBERSBURG, ELISE [Von.	8142	29th Nov. 1866	A concentrated milk for feeding infants and invalids. (Communicated by Baron Justus Von Liebig.)
LESOBRE, CHARLES NICOLAS [ATHANASE.	1472	26th May 1866	Ovens for baking bread and other elements. (Patented by Henri Adrien Bonneville.)
LETCHFORD, ROBERT M	2381	17th Sept. 1866	The improvement of wicks for burning.
Level, Leon	285	29th Jan. 1866	An improved detachable or disengaging eye for launching boats from the sides of ships and for other purposes. (Patented by William Clark.)
Level, Leon	3228	7th Dec. 1866	An improved detaching hook. (Patented by William Clark.)
LEVERSON, MONTAGUE [RICHARD.	444	13th Feb. 1866	Manufacture of gas suitable to be used for illumination or for obtaining heat or motive-power. (Communicated by Guillaume Lemaire Malherbe.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.		
Levin, Max	186	15th Jan. 1866	Construction of electric clocks. (Patented by Alfred Vincent Newton.)		
Lewenberg, Clara	1448	23rd May 1866	An improved composition for beautifying the complexion. (Patented by Joseph Lewenberg.)		
Lewenberg, Joseph	1446	23rd May 1866	An improved composition for beautifying the complexion. (Communicated by Clara Levenberg.)		
Lewis, Joseph	375	7th Feb. 1866	Improvements in meters for measuring and registering the flow of liquids, part of which improvements is also applicable to regulating the flow of steam.		
Lewis, Joseph	1230	1st May 1866	Valves used as in the case of slide valves for regulating the flow of steam, water and other fluids.		
Lewis, Joseph	2855	3rd Nov. 1866	Fire-arms and cartridges.		
LEWIS, RICHARD	8390	24th Dec. 1866	Steam-boilers.		
LEWIS, THOMAS CHRISTOPHER	2835	11th Sept. 1866	Construction of piano-fortes.		
LEY, HENRY WILLIAM	841	21st March 1866	Improvements in pulleys gearing with chains, and in differential pulley blocks.		
LEY, HENRY WILLIAM	2398	18th Sept. 1866	Improvements in working cords, straps or chains with pulleys, also in differential pulley blocks, and in apparatus for pawl- ing or retaining.		
LHUILLIER, JACQUES	2930	10th Nov. 1866	A new and improved sorter and a drilling machine connected therewith. (Patented by Henri Adrien Bonneville.)		
LIBERT, JULES	834	2nd Feb. 1866	Springs for ladies' skirts and similar pur- poses. (Patented by John Henry Johnson.)		
LICHTENSTADT, ELIZABETH -	771	15th March 1866	A new or improved lamp and materials to be consumed thereby.		
LICHTENSTADT, ELISABETH -	1020	10th April 1866	Arrangement and construction of lamps suitable for burning volatile oils or spirits, such as benzole or other light hydrocarbon oils. (Communicated by Philip Lichtenstadt.)		
LICHTENSTADT, ELISABETH -	1021	10th April 1866	An improved compound volatile oil or spirit for burning in lamps of suitable construction. (Communicated by Philip Lichtenstadt.)		
LICHTENSTADT, ELISABETH -	2575	6th Oct. 1866	Improvements in the arrangement and construction of lamps for burning volatile cils or spirits, and in the preparation of the materials for burning in such lamps. (Communicated by Philip Lichtenstadt.)		
LICHTENSTADT, PHILIP	1020	10th April 1866	Arrangement and construction of lamps suitable for burning volatile oils or spirits, such as benzole or other light hydro-carbon oils. (Patented by Elisabeth Lichtenstadt.)		
LICHTENSTADT, PHILIP	1021	10th April 1866	An improved compond volatile oil or spirit for burning in lamps of suitable construction. (Patented by Elisabeth Lichtenstadt.)		
LICHTENSTADT, PHILIP	2575	6th Oct. 1866	Improvements in the arrangement and con- struction of lamps for burning volatile oils or spirits, and in the preparation of the materials for burning in such lamps.		
		•	(Patented by Elisabeth Lichtenstadt.)		

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Lidgerwood, William Van [Vlrek.	2242	30th Aug. 1866	Machinery for hulling and cleaning coffee and other berries or seeds. (Patented by William Edward Newton.)
LIEBIG, BARON JUSTUS VON	3142	29th Nov. 1866	A concentrated milk for feeding infants and invalids. (Patented by Elise Von Lersner-Ebersburg.)
Librnur, Charles Thieme -	898	27th March 1866	A pneumatic method for the inoffensive removal of all fluids, solids and gases, from waterclosets or privies and their conduits, and of storing said materials so that they may be applied in their natural unchanged form to agriculture and other branches of industry.
LISTAR, BERNARD	2841	12th Sept. 1866	An improved method of welding iron upon iron, steel upon steel, and iron upon steel.
LIBUVAIN, VICTOR	2312	8th Sept. 1866	A new or improved cup or apparatus for containing and supplying oil for lubricating purposes. (Patented by Clinton Edgcumbe Brooman.)
LIMET, PIERRE HIPPOLYTE -	1596	12th June 1866	An improved means and apparatus for providing furrows in the surface of metals, applicable especially for cutting files and other purposes.
LINDLEY, LEONARD	3284	14th Dec. 1866	Sewing and embroidering machines.
LINDLEY, LEONARD	3285	14th Dec. 1866	Improvements in stretching or tentering, and in dressing or finishing lace or other fabrics, and in machinery or apparatus employed therein.
LINDNER, EDWARD	294	30th Jan. 1866	Buffers, draw springs and bearing springs. (Patented by Louis Sterne.)
Linford, Charles	748	12th March 1866	An improved apparatus for paring, burnishing, polishing or otherwise finishing articles manufactured of leather.
LINNETT, JOHN	1523	31st May 1866	Manufacture of paper and cardboard boxes and the lids of the said boxes.
LINNINGTON, ADOLPHUS HENRY	502	16th Feb. 1866	Rudders and steering apparatus. (Communicated by Peter Dinzey.)
LINNINGTON, ADOLPHUS HENRY	1624	14th June 1866	Anchors. (Communicated by Peter Dinzey.)
LINTOCK, JAMES M°	1436	22nd May 1866	Heddles or healds for weaving.
Lishman, Matthew Hodgson	231	24th Jan. 1866	Cases or apparatus for drying moulds.
Lishman, Thomas	1792	6th July 1866	Steam-boilers.
LISTER, SAMUEL CUNLIFFE -	1727	28th June 1866	Improvements in machinery for preparing and carding and in treating silk waste.
LITTLE, GEORGE	2188	25th Aug. 1866	Improvements in the manufacture of "tin drums" or rollers used in machinery for preparing and spinning fibrous materials, applicable also to the manufacture of other drums, rollers or tubes of metal, and in machinery or apparatus connected therewith.
LITTLE, GEORGE	2932	10th Nov. 1866	Improvements in instruments for trans- mitting telegrams between remote places, especially adapted for submarine and sub- terranean lines of communication.
LIVESEY, JAMES	1480	21st May 1866	Treating cast iron. (Communicated by Thomas Blair.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LIVESEY, JAMES	1988	25th July 1866	Refining cast iron. (Communicated by Thomas Blair.)
Livesey, James	2160	23rd Aug. 1866	Permanent way of railways and signals for working the same.
LLOYD, FRANCIS	811	19th March 1866	Mode of and apparatus for diffusing moisture and heat through vegetable or other matters.
Loader, John	1562	6th June 1866	Apparatus for raising and lowering weights.
Lock, Alfred George	773	15th March 1866	Manufacture of manures.
Lock, Alfred George	949	3rd April 1866	Preparation and application of malt grains or brewers' refuse as a manure.
Lock, Charles	1480	28th May 1866	Improved methods of attaching soles and heels to boots, shoes and other similar articles.
Lockhead, James	2300	7th Sept. 1866	Arrangement and construction of machinery or apparatus for sawing timber.
Lockwood, Amos	77	10th Jan. 1866	Apparatus for effecting the folding or rigging and the papering of woven fabrics.
Lockwood, REMBRANDT -	47	6th Jan. 1866	Bridges. (Patented by William Clark.)
LOBBL, JOSEF	2232	29th Aug. 1866	Articles consisting of muffs combined with bags, pockets or similar receptacles.
Loeder, William	8439	31st Dec. 1866	Improvements in rails and in part of the permanent way of railways. (Communicated by Gabriel Dümler.)
LOEWIS, BARON WOLDEMAR [VON.	1148	23rd April 1866	An improved machine or apparatus for rippling or seeding flax. (Patented by Charles Denton Abel.)
LOEWIS, BARON WOLDEMAR [VON.	1149	23rd April 1866	Machinery or apparatus for breaking and scutching flax and hemp. (Patented by Charles Denton Abel.)
LOEWIS, BARON WOLDEMAR [VON.	8444	31st Dec. 1866	Machinery or apparatus for rippling or seeding flax. (Patented by Charles Denton Abel.)
Löhren, Martin	4	1st Jan. 1866	A new or improved material or composition of materials suitable as a substitute for leather in various applications. (Communicated by Philipp Wenzel.)
Lompret-Dumont, Jean Loui	s 3104	26th Nov. 1866	Improved apparatus for evaporating the juices of various substances. (Patented by William Edward Gedge.)
Long, Alfred	2169	23rd Aug. 1866	Fountains.
Long, Jean Marie Lazare -	3103	26th Nov. 1866	Improved machinery or apparatus for manufacturing wadding. (Patented by William Edward Gedge.)
Longbottom, John	1450	23rd May 1866	Improvements in the mode or method of applying heat in the drying and calendering of yarns, textile fabrics and other materials, and in the heating and evaporating of liquids, and in the apparatus employed therein.
Longbottom, John -	2149	22nd Aug. 1866	New or improved modes of ornamenting kampakaon, linoleum, kamptulicon, en- amelled india-rubber floor cloths and other similar articles.
LONGBOTTOM, SAMUEL -	1882	19th July 1866	Machinery for condensing wool or other fibrous substances.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Longley, Samuel Munson -	874	24th March 1866	Hoisting apparatus. (Patented by Alfred Vincent Newton.)
Longridge, James Atkinson	441	12th Feb. 1866	Apparatus for facilitating the working and discharge of ordnance, below the water level.
Lonsdale, William	2306	8th Sept. 1866	Water-power engines. (Patented by Edward Thomas Hughes.)
LOOMES; EDWARD	633	1st March 1866	Machinery for planting potatoes.
Loomis, Nathaniel Hubbard	2769	26th Oct. 1866	Improvements in or applicable to lamps. (Communicated by Thomas Hall.)
Loomis, Nathaniel Hubbard	2770	26th Oct. 1866	Machines for composing and printing. (Communicated by Thomas Hall.)
LOPEZ, PEDRO MARTINEZ -	18	3rd Jan. 1866	Apparatus for sowing grain or seed, and performing certain other operations connected therewith. (Patented by Henri Adrien Bonneville.)
Lopez-y-Münoz, Manuel Josè	510	17th Feb. 1866	Machinery for making cigarettes.
Lord, David	234	24th Jan. 1866	Looms for weaving.
Lord, Edward	1096	19th April 1866	Improvements in reaping-machines, which improvements are also applicable to other agricultural implements in which chains are used for communicating motion.
Loversidge, George Lomas -	1915	23rd July 1866	Tanning of hides and skins.
Lovrein, Charles Harrison	606	27th Feb. 1866	An improved process of and apparatus for distilling petroleum and other liquid substances. (Patented by William Edward Newton.)
Lovrein, Charles Harrison	616	28th Feb. 1866	Process of and apparatus for the distillation of tar and other substances. (Patented by William Edward Newton.)
Lowe, Jesse	3227	7th Dec. 1866	Certain improvements in machinery or ap- paratus to be employed in printing paper, calico or other surfaces.
Lowe, John Knox	2138	20th Aug. 1866	An improved inking apparatus for printing in colours. (Patented by George Haseltine.)
Lowe, John Knox	2484	26th Sept. 1866	An improved bronzing machine. (Patented by George Haseltine.)
Lowe, Peter	3227	7th Dec. 1866	Certain improvements in machinery or apparatus to be employed in printing paper, calico or other surfaces.
Lows, Robert	598	27th Feb. 1866	Shuttles for weaving.
Lowe, William	858	23rd March 1866	Improvements in lubricating the journals of shafts, which said improvements are also applicable to the lubrication of the bear- ings of axles used in other machinery.
Löwenstein, Martin	762	14th March 1866	Improvements in bracelets and in fastenings for bracelets.
Lowry, George	2275	4th Sept. 1866	Machinery for spinning flax and other like fibrous materials.
Lucas, Felix Benjamin -	1 644	19th June 1866	Manufacture of screw nuts and bolts.
LUCAS, THOMAS HOLDEN -	1894	21st July 1866	Machinery for the manufacture of nails.
Lucas, West John	942	2nd April 1866	Looms for weaving.
Lucy, Henry Charles -	820	1st Feb. 1866	Connecting or fastening the ends of iron or other metal bands surrounding bales of cotton, wool and other dry goods. (Communicated by Henry Fassman.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Lucy, Henry Charles	3234	8th Dec. 1866	Connecting or fastening the ends of iron and other metal bands surrounding bales of cotton and other like packages. (Communicated by Samuel Boyd.)
Lüdecke, Ferdinand	253	25th Jan. 1866	Improvements in the boxes or bearings of axles of railway and other similar carriages, and in the method of or arrangements for lubricating such axles. (Patented by Francis Wise.)
Lugo, Orazio	31	4th Jan. 1866	Distillation. (Patented by William Edward Newton.)
Lugo, Orazio	2496	27th Sept. 1866	An improvement in the process of distilling petroleum and other oils. (Patented by Alfred Vincent Newton.)
Lugo, Orazio	2685	17th Oct. 1866	Process of distilling petroleum and other oils or substances. (Patented by Alfred Vincent Newton.)
Lund, Benjamin	2884	7th Nov. 1866	Valves for engines worked by steam or other fluid.
LUND, GEORGE	36	5th Jan. 1866	Looms for weaving.
Lundy, John James	2472	25th Sept. 1866	Treatment of the residues resulting from and obtained in the purification and distillation of mineral oils, for the purpose of utilising the same.
Lunge, George	1108	20th April 1866	Manufacture of carbonates and bicarbonates of soda and potash.
Lungley, Charles	8357	20th Dec. 1866	Improvements in war ships, forts, guns and armour, and in fitting and working them.
Lunt, John	1608	13th June 1866	Mode of and apparatus for heating bakers' ovens.
LUTTON, EDWARD TUCKER [COOPER.	3115	27th Nov. 1866	Improvements in woollen and other yarn or twisted strands, and in the machinery or apparatus employed in treating the same. (Patented by John Henry Johnson.)
Luty, John	160	17th Jan. 1866	Improved means of lubricating the spindles of cap and cup frames employed in spinning and twisting fibrous substances, applicable also for lubricating other frictional surfaces of machinery.
Lyall, James	765	14th March 1866	Apparatus for ironing and finishing linen and other fabrics. (Patented by William Clark.)
LYALL, WILLIAM	765	14th March 1866	Apparatus for ironing and finishing linen and other fabrics. (Patented by William Clark.)
LYCETT, WILLIAM	290	30th Jan. 1866	Manufacture of salt.
LYNE, WILLIAM	149	16th Jan. 1866	Apparatus for preventing accidents on rail- ways.
Lyon, Warren	1574	7th June 1866	Drilling machines. (Patented by William Edward Newton.)
Lythgoe, Thomas	2493	27th Sept. 1866	Water-closets, ash-pits, cesspools and similar places.
LYTTLE, WILLIAM ALEXANDER	896	27th March 1866	Means and apparatus for the distillation and rectification of hydrocarbon and other volatile oils.
Lyttle, William Alexander	1408	18th May 1866	Steam generators.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LYTTLE, WILLIAM ALEXANDER LYWOOD, EDWIN	2989 2029	15th Nov. 1866 7th Aug. 1866	, •

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McAllum, William	1772	4th July 1866	Manufacture of machine wires.
McAndrew, Alexander -	1574	7th June 1866	Drilling machines. (Patented by William Edward Newton.)
McBeath, Charles	2788	29th Oct. 1866	Improvements in the treatment or distilla- tion of shale, coal and other bituminous substances, and in the means or apparatus employed therefor.
McBurney, Charles	1649	19th June 1866	An improved process of utilising waste vulcanized india-rubber and manufacturing hard rubber therefrom. (Patented by George Tomlinson Bousfield.)
McCambridge, Samuel -	631	3rd March 1866	Operating railway carriage brakes. (Patented by William Edward Newton.)
McClenahan, James	187	20th Jan. 1866	Studs and buttons.
МсСомав, Тномав	3067	22nd Nov. 1866	Raising sunken vessels. (Communicated by Samuel William Maquay.)
McCorkindale, Dugald -	1225	lst May 1866	Rolling mills.
McCoun, Henry Townsend -	294 2	10th Nov. 1866	Machinery for cutting and heading nails. (Patented by John Garrett Tongue.)
McCued, Claverhouse Al- [FRED.	2611	9th Oct. 1866	Sewing-machines.
McDermid, Daniel	2 758	25th Oct. 1866	Machinery or apparatus for pasting wall papers.
MacDonald, John Cameron	3222	6th Dec. 1866	Improvements in machinery for printing and cutting into sheets rolls of paper, and for collecting sheets so cut, also in the manufacture of stereotype printing surfaces.
McDowell, Daniel	681	6th March 1866	Improved apparatus for cleaning the tubes of steam-boilers. (Patented by Samuel Soutar.)
McDowell, Daniel	2887	17th Sept. 1866	Improved apparatus for cleaning the tubes of steam-boilers.
McEvoy, Charles Ambrose	379	7th Feb. 1866	Torpedoes or submarine explosive instruments.
McEvoy, Charles Ambrose -	1555	5th June 1866	Improvements in shells and in fuses used with shells.
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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
McEvey, Charles Ambrose -	2035	7th Aug. 1866	Torpedoes or submarine explosive instruments.
McFarland, Corey	1478	26th May 1866	An improved album for exhibiting photographs and other pictures. (Communicated by John Spooner.)
McFarland, Corey	1549	4th June 1866	Machinery for cutting corks and bungs. (Communicated by Charles Harris.)
McFarland, Corey	2197	25th Aug. 1866	An improved friction clutch for starting and stopping machinery. (Communicated by James Brown.)
MacGeorge, Ivie Mackie -	1012	9th April 1866	A new or improved vertically floated paddle- wheel.
MacGeorge, Samuel	1012	9th April 1866.	A new or improved vertically floated paddle- wheel.
McGlashan, John	3230	7th Dec. 1866	An improved cap or cover to be applied for securing and labelling bottles.
McGregor, Peter	3155	1st Dec. 1866	Machinery for spinning and doubling.
McIlwham, James	141	16th Jan. 1866	Winding apparatus.
McIlwham, James	514	19th Feb. 1866	Improvements in and relating to fence, gate and telegraph posts.
McĮlwham, James	2060	10th Aug. 1866	Improvements in making moulds for cast- ing ground screws for fence and other posts, and in apparatus therefor.
McIlwraith, Walter	1316	8th May 1866	
McKenney, Andrew	2928	10th Nov. 1866	Coffee hullers. (Patented by Henri Adrien Bonneville.)
McKenzie, George	769	15th March 1866	Obtaining illuminating gas and oil.
McKenzie, James Farquhar- [800.	1918	23rd July 1866	Producing and super-heating steam. (Patented by George Tomlinson Bousfield.)
McKenzie, John	1963	30th July 1866	Machinery or apparatus for actuating and regulating railway points and signals.
McKinstry, Samuel	808	19th March 1866	Machinery for preparing, spinning and twist- ing flax, cotton, wool and other fibrous substances.
McLean, Edward	8172	3rd Dec. 1866	Pianofortes and harmoniums.
McLintock, James	1436	22nd May 1866	Heddles or healds for weaving.
McMaster, William	1979	lst Aug. 1866	Apparatus for holding or releasing cords, chains, ropes and bands.
McMonnies, William	1916	23rd July 1866	Grate bars for furnaces and fire-places. (Patented by John Henry Johnson.)
McNab, John	844	22nd March 1866	Means or apparatus for drying and stenter- ing woven fabrics.
McNair, Antoine	2594	8th Oct. 1866	Brick making machines. (Patented by George Tomlinson Bousfield.)
McNally, Edward	1812	llth July 1866	Machinery or apparatus for grinding and polishing circular saws and other articles.
McNaught, John	984	5th April 1866	Machinery for washing and drying wool and other fibrous materials.
McNaught, William, jun'	984	5th April 1866	Machinery for washing and drying wool and other fibrous materials.
McNeil, David	2357	13th Sept. 1866	Improvements in hydraulic gas chandeliers, and in gas regulators applicable thereto and to other gas-burners or meters.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
McPhail, Hugh	630	lst March 1866	Improvements in raising or lifting and forcing water and other liquids, and in the apparatus or mechanism employed therefor.
McPherson, John	2867	14th Sept. 1866	Winding apparatus.
McTaggart, Robert	2854	3rd Nov. 1866	An improved pill making machine.
McVitie, John	1869	18th July 1866	Certain improvements in mules for spinning
MACAIGNE, PIERRE JOSEPH -	957	4th April 1866	Jacquard looms or machinery for weaving.
MACAULAY, THOMAS ANTONEY	2610	9th Oct. 1866	Sewing-machines. (Patented by Francis George Bradbury.)
Macdonald, Archibald -	1635	16th June 1866	Locks.
Macdonald, George	1397	17th May 1866	Machinery or apparatus for cleaning and ginning cotton and other fibrous substances.
MACDONALD, WILLIAM STE- [VENSON.	2967	13th Nov. 1866	Improvements in the method and means of cleansing textile and other fabrics and materials, also in the method and means of cleansing and preparing textile and other fabrics and materials to be dyed, or printed and dyed.
MACDONNELL, WILLIAM -	2760	25th Oct. 1866	Fastening the mouths of corn, flour and other sacks.
MACHABÉR, JEAN LAURENT [AUGUSTE.	3130	28th Nov. 1866	Improvements in impermeable mastic com- positions, and in their application for various useful purposes. (Patented by William Clark.)
Machattie, Alexandee [Taylor.	718	9th March 1866	Improvements in preservative coatings, and in applying the same to casks, tanks and other vessels.
Machin, Samuel	692	7th March 1866	An improved apparatus for cleaning ships' sides and bottoms.
Machin, William	692	7th March 1866	An improved apparatus for cleaning ships' sides and bottoms.
Macintosh, John	316	lst Feb. 1866	Gas pipes.
Macintosh, John	748	12th March 1866	Improvements in impervious compounds applicable where indis-rubber, gutta-percha or such like resins or gums are used.
Macintosh, John	852	22nd March 1866	Improvements in augmenting musical sounds and in apparatus connected therewith.
Macintosh, John ·	1008	9th April 1866	Improvements in docks and apparatus connected therewith, parts of which are applicable to floating structures.
Macintosh, John	1128	21st April 1866	Guards for pocket books, watches and watch keys.
Macintosh, John	1870	18th July 1866	Elastic fabrics.
Macintosh, John	3325	18th Dec. 1866	Breech-loading guns and projectiles.
Mack, Wilhelm Hendrik [Klerck.	2008	3rd Aug. 1866	Apparatus to be used for fishing. (Communicated by John Kildal.)
Mackie, Alexander	2303	7th Sept. 1866	Certain improvements in machinery or apparatus for "composing" or "setting" type.
MACKIE, ALEXANDER	3396	26th Dec. 1866	Certain improvements in apparatus for dis- tributing type, and in apparatus for pre- paring type for distribution.
Mackintosh, William	837	3rd Feb. 1866	Holding details for lathes, vices and wrenches. (Communicated by James Taylor.)

Number of Patent.	Date.		Subject-matter of Patent.
1745	30th June	1866	Improvements in the construction of rail- way rolling stock, and in the permanent way applicable thereto.
27	4th Jan.	1866	Means and apparatus for producing and employing motive-power.
67	9th Jan.	1866	Breaks for railway and tramway carriages. (Communicated by John Davis.)
70	9th Jan.	1866	Apparatus and process for distilling oils and other liquids. (Communicated by James Johnston and John Davis.)
1046	13th April	1866	Apparatus and processes for tanning. (Communicated by James Johnston.)
954	4th April	1866	Certain improvements in the construction of safes and other similar depositories.
1907	23rd July	1866	Lamps and other lighting and heating apparatus fed by mineral or other volatile liquids.
351	5th Feb.	1866	A machine for cutting, stamping and em- bossing paper, cardboard, leather, india- rubber and woven fabrics in general. (Communicated by Jean Carton.)
488	14th Feb.	1866	An improved construction of submarine telegraphic cable for the transmission of electric despatches.
2159	23rd Aug.	1866	Improvements in breech-loading and other fire-arms, and in bayonets for the same. (Communicated by Charles Howard.)
3378	22nd Dec.	1866	Rag grinding machines. (Patented by Joseph Rhodes, William Sunderland Rhodes and Josiah Rhodes.)
1840	13th July	1866	Improvements in locomotive engines for enabling them to ascend steep inclines.
3406	28th Dec.	1866	Locomotive and marine engines.
1615	14th June	1866	The purifying of ammoniacal liquor by an improved process, and the application of such purified ammoniacal liquor to the purifying of coal gas.
444	13th Feb.	1866	Manufacture of gas suitable to be used for illumination or for obtaining heat or motive-power. (Patented by Montague Richard Leverson.)
3171	3rd Dec.	1866	A process and apparatus for producing jointly or separately oxygen and chlorine, from the same chemical substance and in the same apparatus.
314	lst Feb.	1866	Certain improvements in the treatment of yarns or threads previously to dyeing them.
2092	15th Aug.	1866	Apparatus for cutting, grinding and finishing marble and other similar materials. (Patented by William Brookes.)
2621	10th Oct.	1866	Apparatus for preventing injury to persons in railway trains. (Communicated by Baron Von Roesgen Von Floss.)
	97 Patent. 1745 27 67 70 1048 954 1907 351 488 2159 3378 1840 3408 1615 444 3171 314 2092	Patent. Date. 1745 30th June 27	of Patent. Date. 1745 30th June 1866 27 4th Jan. 1866 67 9th Jan. 1866 70 9th Jan. 1866 1046 13th April 1866 954 4th April 1866 1907 23rd July 1866 361 5th Feb. 1866 486 14th Feb. 1866 23rd Aug. 1866 3378 22nd Dec. 1866 3406 28th Dec. 1866 1615 14th June 1866 444 13th Feb. 1866 3171 3rd Dec. 1866 314 1st Feb. 1866 2092 15th Aug. 1866

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Manceaux, François Jules -	3425	29th Dec. 1866	Improvements in breech-loading fire-arms, and in cartridges for the same.
Manfield, Henry Arthur -	1254	3rd May 1866	Method of and apparatus for pickling vegetables.
Mangeon, Ernest	135	15th Jan. 1866	Improvements applicable to water-closets and commode pans. (Patented by Henry Edward Newton.)
Mann, William Charles -	147	16th Jan. 1866	An improved method of making felt hats.
Manne, Anatole	2245	31st Aug. 1866	An improved method for the preservation of wood. (Patented by Augustus de la Gautraye.)
Manock, Thomas	786	16th March 1866	Improved apparatus to be employed in the manufacture of cheese.
Mansell, George	3160	1st Dec. 1866	Manufacture of lettered, numbered and figured tablets, door and name plates, labels and signs, show plates and other similar articles.
Manuel, Armand	2766	26th Oct. 1866	A new process of and apparatus for un- corking bottles.
Manwaring, William	2689	18th Oct. 1866	Reaping and mowing machines.
Mappin, Walter Sandell -	3317	17th Dec. 1866	Improvements in breech-loading fire-arms, and in cartridge case extractors for breech- loading fire-arms, and in cartridges for breech-loading fire-arms.
Maquay, Samuel William -	3067	22nd Nov. 1866	Raising sunken vessels. (Patented by Thomas M ^c Comas.)
Marcadier, Charles René -	2263	3rd Sept. 1866	An improved smoke-consuming fire-place. (Patented by Henri Adrien Bonneville.)
Marcais, Joseph Jean	1442	22nd May 1866	Certain improvements in the treatment of slags, ores and compounds of tin.
Marchal, Désiré	2072	13th Aug. 1866	Improvements in the combustion and pre- vention of smoke, and in increasing the heating power of fuel.
Maréchal, Charles Raphael	84	10th Jan. 1866	Bleaching vegetable and animal fibres and tissues. (Patented by Richard Archibald Brooman.)
Maréchal, Charles Raphael	85	10th Jan. 1866	An improved method of producing oxygen. (Patented by Richard Archibald Brooman.)
Marechal, Charles Raphael	2266	3rd Sept. 1866	A new method of bleaching fibres and fabrics of vegetable origin. (Patented by Clinton Edgcumbe Brooman.)
Marechal, Charles Raphabl, [jun ^r .	1726	28th June 1866	Obtaining alkaline permanganates. (Patented by Clinton Edgeumbe Brooman.)
Margetts, John	788	16th March 1866	Certain parts of the apparatus connected with the game of cricket.
MARIN, NICOLAS MICHEL -	8019	17th Nov. 1866	Knapsacks, valises and other portable cases.
MARKS, MYER	3076	23rd Nov. 1866	Improved digitorium (a small instrument to strengthen the wrists and fingers, and in connection with pianoforte, organ and harmonium playing).
Marland, Samuel	447	13th Feb. 1866	Improvements in obtaining and applying artificial heat for producing light and for other purposes, and in the apparatus employed therein.
MARQUARD, FRANK	800	31st Jan. 1866	Working and treating india-rubber, gutta- percha and other similar gums. (Patented by William Robert Lake.)

Name of Patentee.	Number of	Date.	Subject-matter of Patent.
	Patent.		
Marr, James	724	9th March 1866	Machines used for lithographic printing.
MARREN, EDWIN PATRICK -	528	20th Feb. 1866	Valves.
MARSDEN, WILLIAM	1387	10th May 1866	Certain improvements in the construction of water-closets and in the valves con- nected therewith.
Marse, Stephen Ambrose -	585	21st Feb. 1866	Improvements in drills and in chucks for holding and operating the same and similar articles. (Patented by William Robert Lake.)
Marsh, James	1281	5th May 1866	Certain improvements in apparatus for lubricating the spindles employed in machinery for spinning, doubling or twisting fibrous materials, which is also applicable for lubricating the "foot bearings" of any vertical shafts. (Communicated by Thomas Marsh.)
Marsh, James	2421	.21st Sept. 1866	Certain improvements in the method of lubricating vertical spindles or shafts, and in the apparatus for effecting the same. (Communicated by Thomas Marsh.)
Marsh, James Shorkley -	2154	22nd Aug. 1866	An improved construction of self-raking reaper. (Patented by Frederick Howard.)
Marsh, James Shorkley -	3868	21st Dec. 1866	Construction of mowing and reaping machines. (Patented by James Howard.)
Marsh, Jesse Kersey	2172	23rd Aug. 1866	An improved mode of preventing eggs of all kinds from spoiling. (Patented by William Edward Newton.)
Marsh, Thomas	1279	4th May 1866	Steps for the spindles of spinning frames. (Patented by George Tomlinson Bousfield.)
Marsh, Thomas	1281	5th May 1866	Certain improvements in apparatus for lubricating the spindles employed in machinery for spinning, doubling or twisting fibrous materials, which is also applicable for lubricating the "foot bearings" of any vertical shafts. (Patented by James Marsh.)
Marsh, Thomas	2027	6th Aug. 1866	Steps or foot bearings for spindles. (Patented by William Robert Lake.)
Marsh, Thomas	2421	21st Sept. 1866	Certain improvements in the method of lubricating vertical spindles or shafts, and in the apparatus for effecting the same. (Patented by James Marsh.)
Marsh, Thomas	2666	15th Oct. 1866	An improved apparatus for tapping beer casks and other like vessels containing liquids under pressure. (Patented by William Robert Lake.)
Marsh, Thomas	3078	22nd Nov. 1866	An improved apparatus for tapping beer casks and other like vessels containing liquids under pressure. (Patented by William Robert Lake.)
Marshall, James	1090	18th April 1866	Apparatus for heating the water supplied to locomotive and other multitubular steamboilers.
MARSHALL, JAMES GARTH -	1629	15th June 1866	Mode of and apparatus for treating fibrous materials preparatory to their being spun.
Marshall, John	958	4th April 1866	Improvements in hydrostatic presses and in the mode or method of working the same.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Marshall, Thomas	251	25th Jan. 1866	Improvements in finishing the soles and heels of boots and shoes, and in apparatus employed for such purposes.
Marshall, Thomas	1181	27th April 1866	An improved apparatus for supplying water to steam-boilers.
Marshall, William Alfred	1989	2nd Aug. 1866	A new and improved method for insulating and protecting electric telegraph wires for submarine, subterranean and other lines, with improvements in the machinery and in the process and material.
Marshall, William Alfred	. 3192	4th Dec. 1866	Improvements in insulating and protecting electric telegraph wires, and in the means or apparatus employed therein.
MARSHALL, WILLIAM MAROT	1541	2nd June 1866	Construction of reflectors. (Patented by Edward Primerose Howard Vaughan.)
MARSTON, WILLIAM WALKER	2975	13th Nov. 1866	Machinery for carving wood, metal, marble or other material, to the shape of a pattern.
Martin, Alexandre	1752	2nd July 1866	Construction of furnaces and kilns. (Patented by Henri Adrien Bonneville.)
Martin, Benjamin Green -	584	21st Feb. 1866	Pocket rules. (Patented by William Robert Lake.)
Martin, Célestin	2481	26th Sept. 1866	Machinery for carding wool and other fibrous materials. (Patented by Henri Adrien Bonneville.)
Martin, Célestin	2482	26th Sept. 1866	Machinery for weaving wool and other fibrous materials. (Patented by Henri Adrien Bonneville.)
Martin, Emile	859	23rd March 1866	A new or improved process of transforming scraps or cuttings of Bessemer steel, and other scraps or cuttings of iron puddled steel and cast steel, into ingots of cast steel. (Patented by Ciinton Edgcumbe Brooman.)
MARTIN, JOHN COWDERY -	915	29th March 1866	An improvement in treating bones and in the manufacture of the products thereof.
Martin, John Stanwoth -	2724	22nd Oct. 1866	Propelling and steering ships and vessels. (Patented by John Henry Johnson.)
Martin, Pierre Emile	859	23rd March 1866	A new or improved process of transforming scraps or cuttings of Bessemer steel, and other scraps or cuttings of iron puddled steel and cast steel, into ingots of cast steel. (Patented by Clinton Edgcumbe Brooman.)
Martin, Pierre Paul Joseph	2519	29th Sept. 1866	Cotton seed hullers or decorticating machines.
Martin, René Louis	3356	20th Dec. 1866	Breech-loading fire-arms. (Communicated by Oscar Oelkers and Frederic Spengler.)
Martin, Samuel Manley -	237	24th Jan. 1866	Electric telegraph apparatus.
Martin, Samuel Manley -	982	31st March 1866	Electric telegraphs.
Martin, Samuel Manlry -	986	5th April 1866	Improvements in train inter-communication, parts of the invention being applicable to other purposes.
Martin, William, jun ^e -	2078	14th Aug. 1866	Certain improvements in the construction and mode of working calendars and mangles used in finishing textile fabrics.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Masnata, David Fernando -	638	2nd March 1866	Steam vessels. (Patented by William Clark.)
Mason, Charles	299	31st Jan. 1866	Revolving fire-arms. (Patented by William Robert Lake.)
Mason, Samuel	462	14th Feb. 1866	Certain improvements in the manufacture of water, beer and wine taps, applicable for other similar purposes.
Massé, Désiré	492	16th Feb. 1866	Construction of carts and other vehicles. (Patented by William Edward Gedge.)
Massiou, Sophie Dambrine (Widow Polydore.)	1060	14th April 1866	Beds for invalids and other sick and infirm persons. (Patented by Henri Adrien Bonneville.)
Massy, Louis Pierre Robert [de.	1130	21st April 1866	Mode of and apparatus for expressing liquids from pulpy and semi-fluid substances.
MASTER, WILLIAM MC	1979	1st Aug. 1866	(Patented by William Edward Newton.) Apparatus for holding or releasing cords,
			chains, ropes and bands.
MATHER, COLIN	488	15th Feb. 1866	Preparing linen yarn.
MATHER, COLIN	570	23rd Feb. 1866	Improvements in machinery for washing yarns, applicable also for washing linen, cotton and other yarns in the hank.
MATHER, COLIN	1124	20th April 1866	Beetling beams of beetling engines.
MATHER, GEORGE RADFORD -	1524	31st May 1866	Means or apparatus for holding or setting work to be cut, planed, turned, drilled or otherwise operated upon.
Mather, James Chadwick -	2712	20th Oct. 1866	Improvements in floor, leather, brattice, oil and other cloths, and in their manufacture.
Mathers, Robert	95	11th Jan. 1866	Manufacture of toothed wheels for gearing shafts, axles and spindles.
Mathieson, Thomas Adam -	744	12th March 1866	Holding devices for boring tools. (Communicated by Cyrus Avery.)
MATHIEU, ALEXIS VICTOR -	1950	27th July 1866	An improved apparatus for irrigating the intestines, the vagina, the bladder, the brain, the eyes and eyelids.
MATTHEWS, JOSEPH	208	22nd Jan. 1866	An improvement or improvements in heating furnaces for smelting, puddling, melting and annealing metals, or for the manufacture of glass.
MATTHEWS, WILLIAM JAMES -	2875	6th Nov. 1866	Breech-loading fire-arms.
Matthiessen, James Adolphe	978	5th April 1866	Steering telegraphs or steering indicators and tell tales.
Maud, William	3218	6th Dec. 1866	"Screw gill-boxes" for preparing wool and other fibrous substances.
Maunder, Frederick - •	3075	23rd Nov. 1866	Preventing the recurrence of periods of excessive speculation and panic.
Maxwell,Joseph Alexandei	876	7th Feb. 1866	Pneumatic railways.
MAY, CHARLES NEALE	452	13th Feb. 1866	Apparatus for operating on straw applied to threshing machines or otherwise.
MAY, EDMUND REYNOLDS -	1081	17th April 1866	Improved apparatus for lowering and disengaging ships' boats, part of which improvements is applicable to blocks employed for other purposes.
MAYER, GUSTAVE	878	7th Feb. 1866	Construction of needles employed more particularly in fancy needle-work on canvas. (Patented by Benjamin Browne.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Mayes, John	3399	27th Dec. 1866	Manufacture or production of needles.
MAYNARD, ROBERT	1490	29th May 1866	Horse rakes.
MAYNARD, ROBERT, the younger	1490	29th May 1866	Horse rakes.
Maynard, Samuel	3256	11th Dec. 1866	Railway carriages and waggons. (Patented by Clinton Edgcumbe Brooman.)
Mayo, George	608	27th Feb. 1866	Weighing-machines. (Patented by William Robert Lake.)
Mayre, Alexandre Damas -	2591	8th Oct. 1866	Steam-engines. (Patented by William Edward Newton.)
MEAKIN, GEORGE FREDERICK [LEE.	2767	26th Oct. 1866	An improved method of capping old and new rails used on railways and other ways.
Medcalf, Ralph	2028	6th Aug. 1866	Couplings or connections particularly adapted for coupling or connecting gas, water and other pipes.
Medd, Henry	2864	5th Nov. 1866	Mounts for cartes de visite and playing cards.
MEDHURST, JOHN	876	24th March 1866	Apparatus for reefing and furling sails of ships and vessels.
Medlock, Henry	1707	27th June 1866	Preserving animal substances.
Meille, Jean	2640	12th Oct. 1866	An improved system of spinning the silk from the cocoons of silk worms, and for the machinery or apparatus employed therein. (Patented by Edward Thomas Hughes.)
MEIXNER, FREDERICK NICHO-	8820	17th Dec. 1866	Turbines.
Meldrum, Edward	8800	15th Dec. 1866	Manufacture of gas for illuminating and heating purposes.
MELLAND, GEORGE STEPHENS	1839	10th May 1866	An improved mode of and means for ex- tracting cartridge cases from breech-loading fire-arms.
Mellor, George	146	16th Jan. 1866	Machinery for the manufacture of nails and spikes.
Mellor, James Montague -	2236	30th Aug. 1866	Softening, disintegrating and bleaching vegetable fibres.
MENNONS, MARC ANTOINE [François.	267	27th Jan. 1866	Mode of and apparatus for compressing air or aëriform fluids, for the generation of motive-power and other purposes. (Communicated by Nicholas de Telescheff.)
Mennons, Marc Antoine [François.	659	5th March 1866	Mode of converting the fibrous residues of certain plants into filaments suitable for the manufacture of textile fabrics, paper pulps and other products. (Communicated by Marie Anne Véronique Causique.)
Mennons, Marc Antoine [François.	1888	20th July 1866	Mode of and apparatus for generating gas for lighting, heating and other purposes. (Communicated by Jaroslav Zadora Paszkowski and Olgerd Sabinski.)
Mennons, Marc Antoine [François.	2695	18th Oct. 1866	Improvements in breech-loading fire-arms and in cartridges for the same, part of which improvements are applicable to ordnance. (Communicated by Charles François Galand.)

Name of Patentee.	Number of Patent.	Date.		Subject-matter of Patent.
Mennons, Marc Antoine [François.	8169	3rd Dec.	1866	An improved apparatus for the automatica performance of music on pianos, organs and other keyed instruments of like description. (Communicated by Juan Amann.)
MERRIAM, MATTHEW HENRY	2585	8th Oct.	1866	Manufacture of leather binding. (Patented by George Haselline.)
MERRIAM, SCOVIL STURGIS -	766	14th March	1866	An improved submarine and torpedo boat.
Merriam, Truman	1958	28th July	1866	Rotary engines. (Patented by William Clark.)
MESNIL, BARON OSCAR DE -	50	6th Jan.	1866	Improvements in towing boats on rivers or canals, a part of which improvements in also applicable to the traction of vehicles on rail or tramways or common roads.
MESSENT, PHILIP JOHN -	1435	21st May	1866	Apparatus for mixing concrete and other materials.
Messer, Henry	2633	11th Oct.	1866	Heated air-engines.
Meurant, Joseph	1791	6th July	1866	Looms for weaving.
MEYER, BERNARD	2480	26th Sept.	1866	Transmitting facsimile copies of writing and drawings by means of electric currents (Patented by Henri Adrien Bonneville.)
Meyer, Frederick	2658	13th Oct.	1866	Improvements in the manufacture of candle and in moulds employed in such manu facture.
Michaud, Pierre	808	17th March	1866	Improvements in the manufacture of rail way wheels and in apparatus for the same, which apparatus is also applicable for the manufacture of railway buffers.
Michaud, Pierre François -	2253	1st Sept.	1866	Weighing-machines.
Michel, Eugène	1395	16th May	1866	Furnaces and other fire-places. (Patented by William Clark.)
MIDDLETON, SANUEL	881	8th Feb.	1866	Fire-escapes.
Middleton, Samuel	1330	9th May	1866	Method and means of securing and dis charging the contents of pipes and vessels
MIDDLETON, SAMUEL	2260	3rd Sept.	18 6 6	Fixing the soles and heels of boots an shoes.
Mignon, Jean Baptiste Java	1282	5th May	1866	Improved apparatus for exhausting an compressing air, applicable to the transmission of despatches and other object through tubes, and to raising water. (Patented by George Davies.)
Mignot, Elizabeth	2742	24th Oct.	1866	
Mignot, Léon	1859	16th July	1866	Preparation of soluble alkaline silicates t render them suitable for being used fo preserving stone, wood and other mate rials, and for manufacturing artificis stone and for other purposes.
MILBURN, ROBERT, june	565	23rd Feb.	1866	Treatment of brewers' and distillers' grains
Miles, Isaac Lewis	2040	8th Aug.	1866	An improved mode of and apparatus for printing on glass and other materials. (Patented by George Davies.)
Miller, James	2247	31st Aug.	1866	Improved apparatus for boring boiler tub heads, drilling angle holes, or cuttin circular grooves in metallic substances. (Patented by William Edward Newton.)
Miller, James	2688	18th Oct.	1866	An improved machine for washing cloth an clothes.

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	Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Mi	LLER, JAMES	3451	31st Dec. 1866	Manufacture of elastic gussets.
	LLER, JAMES, jun ^e	3451	31st Dec. 1866	Manufacture of elastic gussets.
	LLER, JOHN	802	31st Jan. 1866	Apparatus for cooling worts or other liquids.
	ILLER, JOSEPH AUGUSTUS -	2720	22nd Oct. 1866	Improvements in the construction and arrangement of steam-boilers, and in means or apparatus for collecting sediment or deposit therein. (Patented by John Garrett Tongue.)
M	ills, Benjamin Joseph [Barnard.	2754	25th Oct. 1866	Manufacture of ploughs. (Communicated by The "Collins Company.")
M	ills, Benjamin Joseph [Barnard.	3174	3rd Dec. 1866	Bench vices. (Communicated by New England Vice Company.)
	illward, John	1806	10th July 1866	A convertible piano and music stool. (Communicated by Charles Hess.)
Mı	LLY, LOUIS ADOLPHE DE -	1626	15th June 1866	A new process in the treatment of concrete fatty acids for the manufacture of candles called "stearine candles."
Mı	ilner, John	1298	7th May 1866	Expansion gear of steam-engines.
Mı	LROY, JOHN	1701	26th June 1866	Apparatus for excavating.
Mı	INCHIN, FREDERICK JAMES [VIVIAN.	594	27th Feb. 1866	An improved process for extracting the juice from sugar-cane, beetroot and other plants. (Patented by William Edward Gedge.)
Mı	nchin, Frederick James (Vivian.	3187	4th Dec. 1866	An improved machine for cutting sugar- cane. (Patented by Ferdinand Kohn.)
M	neur, Adolphe François-	191	20th Jan. 1866	A new or improved description of manure.
	INHORST, HEINBICH	1340	10th May 1866	Obtaining green coloring matters of various shades for dyeing and printing. (Patented by Read Holliday.)
M	INNS, HENRY ROYALL	2152	22nd Aug. 1866	Fire and thief proof safes.
M	RFIELD, MATTHEW	2601	9th Oct. 1866	Machinery or apparatus for combing wool or other fibrous substances.
ŀ	IROUDE, ADOLPHE	1651	20th June 1866	A new application of the electric light for lighting buoys of every description.
M	itchell, Henry	329	2nd Feb. 1866	Travelling or fitted dressing bags.
M	itchell, Hiram	1112	20th April 1866	Machinery for spinning and doubling.
М	itchell, James	3093	24th Nov. 1866	A new or improved detergent material appli- cable to the cleansing of wool and other fibrous substances, and to all purposes where coarse soap is used.
M	ITCHELL, JOHN	8879	22nd Dec. 1866	Improvements in the construction of vene- tian blinds and in mechanism to be used in connection therewith.
М	ITCHELL, ROBERT	1903	21st July 1866	Improvements in shaping and forging metals and in the machinery or apparatus em- ployed therein.
M	ITCHELL, ROBERT, jun' -	3141	29th Nov. 1866	A revolving watch-bow and pendant.
М	itchell, Samuel	3379	22nd Dec. 1866	Improvements in the construction of vene- tian blinds and in mechanism to be used in connection therewith.
М	oën, Henri Arquiene [René.	749	12th March 1866	An improved construction of gravitating level. (Patented by Alfred Vincent Newton.)

Name of Patentee.	Number of Patent.	Date.		Subject-matter of Patent.
Moffat, John	1872	18th July	1866	Certain improvements in lamps.
Moile, Fortuné La	3144	29th Nov.	1866	Incubators and apparatus for rearing young chickens.
Molden, Thomas	336	3rd Feb.	1866	Furnaces for steam-boilers and for other purposes.
Mole, Charles	3312	17th Dec.	1866	An apparatus for the more expeditious and effectual attachment of skates to boots or shoes.
Molineux, Thomas	2963	13th Nov.	1866	Pianofortes.
Möller, Johannes	1657	20th June	1866	Obtaining and preparing coloring matter for printing, dyeing and other purposes.
Moncrieff, Alexander -	15 4 8	4th June	1866	Mounting and working of ordnance.
Mondini, Thomas	583	21st Feb.	1866	Construction and arrangement of steam- boilers. (Patented by William Edward Gedge.)
Money, George Henry -	2696	18th Oct.	1866	Improved apparatus for separating liquid from solid substances.
Monnier, Jean	1791	6th July	1866	Looms for weaving.
Monnies, William Mc	1916	23rd July	1866	Grate bars for furnaces and fire-places. (Patented by John Henry Johnson.)
Monnin, Jean	2597	9th Oct.	1866	Carriage indicators stating the distance travelled, the time when they have been hired or not, and if they are hired or not.
Montagu, Montague	10	lst Jan.	1866	Manufacture of hats and other coverings for the head.
Montclar, Jean Marie Ar- [mand.	258	26th Jan.	1866	Improvements in the manufacture of materials or compositions for decolorising or purifying saccharine or other liquids, and for making paint, blacking and foundry blackening, and in apparatus therefor.
Monte, Pietro	923	31st March	1866	Apparatus for indicating and registering the variations in pressure and working of the steam in the cylinders of steamengines. (Patented by George White.)
Montgomery, John Alex- [ander.	3043	20th Nov.	1866	Construction of hay, manure and other forks (Patented by George Haseltine.)
Moodie, William	2485	26th Sept.	1866	Taps or cocks for water and other fluids. (Patented by John Henry Johnson.)
Moore, Alfred	521	20th Feb.	1866	Certain improvements in the method of and means for communicating with and trans- mitting power from place to place.
Moore, George Edward -	2125	18th Aug.	1866	Apparatus for filtering and purifying water and other fluids.
Moore, Henry	86	5th Jan.	1866	Looms for weaving.
Moore, Henry	59	9th Jan.	1866	Looms for weaving.
Moore, Henry	1287	2nd May	1866	Looms for weaving.
Moore, John	36	5th Jan.		Looms for weaving.
Moore, John	118	13th Jan.	1866	Looms for weaving.
Moore, John	1429	21st May	1866	Looms for weaving.
Moore, William Cameron -	1853	11th May	1866	Certain improvements in machinery for preparing, spinning and doubling cotton or other fibrous substances.
Morand, Peter Joseph -	1409	18th May	1866	Infants' feeding bottles.

Name of Patentee.	Number of Patent.	Date.		Subject-matter of Patent.
Morat, Alexander John [Baptist De.	2052	9th Aug.	1866	An improved telegraphic cable. (Patented by William Robert Lake.)
Morel, Augustin	1266	4th May	1866	Improvements in the treatment of fila- mentous materials, and in machinery or apparatus for combing the same.
Moreland, Richard, junf -	224	23rd Jan.	1866	Construction of fire-proof floors for buildings.
MORET, CLAUDE	3371	21st Dec.	1866	Apparatus for producing a draught in furnaces and for purifying the smoke therefrom.
36				(Patented by William Clark.)
Morewood, Edmund	8060	21st Nov.		Coating plates or sheets of metal.
Morgan, Edward	3108	26th Nov.		Carriages.
Morgan, George Henry	3108	26th Nov.		Carriages.
Morgan, Henry Morgan, John	2216	28th Aug.		Pulleys for hanging balance sashes. Improvements in preserving animal sub-
MORGAN, JOHN	1904	21st July	1800	stances, and in sealing tins or cases con- taining preserved provisions, and in the apparatus employed therein.
Morgan, John Walker -	2420	21st Sept.	1866	Ships' anchors.
Morgan, Richard Douglass	971	5th April	1866	Couplings of railway carriages, trucks or vans.
Morgan, Thomas Vaughan -	3292	15th Dec.	1866	Apparatus for the manufacture of crucibles and other hollow articles from plastic materials.
Mobiarty, Cornelius	139	15th Jan.	1866	Construction of tube brushes used in clean- ing the tubes of marine, locomotive and all kinds of multitubular boilers.
Morley, Joseph Roberts -	3074	22nd Nov.	1866	Improvements in shop fittings, applicable also to book shelves and other articles of furniture.
Morrell, James Convers -	2988	14th Nov.	1866	Improvements in the construction of dry closets, and in apparatus for preparing manure.
Morris, Augustus Theodore	1483	28th May	1866	Scoops and elevators for excavating. (Patented by William Clark.)
Morris, Ellis	1614	14th June	1866	Apparatus to be employed in churning.
Morris, James	1238	2nd May	1866	Mills for grinding wheat and other grain.
Morris, Leopold	1561	6th June	1866	Muffs.
Morris, Richard	1984	1st Aug.	1866	Improved machinery for sharpening saws.
Morse, Gilbert Livingston	1404	17th May	1866	An improved method of and instrument for measuring the depth of water and the compression of liquids. (Patented by William Edward Newton.)
Morse, Monroe	775	15th March	1866	An improved machine for pressing straw hats and bonnets.
Morse, Sidney Edwards -	1404	17th May	1866	An improved method of and instrument for measuring the depth of water and the compression of liquids. (Patented by William Edward Newton.)
Mortimer, Russell	2545	3rd Oct.	1866	Instruments for marking or impressing railway tickets and for other like purposes.
Mortimer, Samuel	2128	18th Aug.	1866	Machinery or apparatus for combing wool or other fibrous substances.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Morton, Alexander	948	3rd April 1866	Method of and apparatus for ascertaining latitude, longitude and Greenwich time.
MORTON, ALFRED GEORGE [Edwin.	2748	24th Oct. 1866	Apparatus for reducing or comminuting of cake.
Morton, Ellis Johnson -	3026	19th Nov. 1866	Wheels for carriages and vehicles. (Patented by Ellis Wesley Morton.)
MORTON, ELLIS WESLEY -	8026	19th Nov. 1866	Wheels for carriages and vehicles. (Communicated by Ellis Johnson Morton.
Morton, Robert	770	15th March 1866	Machinery for tunnelling underneath the beds of rivers or watercourses, and throug quicksands.
Moseley, Charles	1305	8th May 1866	Machinery and apparatus used in the manufacture of sheets of india-rubber.
Moseley, Charles	2966	13th Nov. 1866	Machinery for the manufacture of indis rubber thread.
Moseley, Joseph	1826	12th July 1866	Manufacture of card cloth.
Moseley, Walker	883	24th March 1866	An improved electrical indicator.
Moseley, Walker	884	24th March 1866	Croquêt balls.
Moselby, Walker	885	24th March 1866	Galvanic batteries.
Moselby, Walker	1801	9th July 1866	An improved apparatus for slicing ar paring cucumbers and other vegetabl and fruits.
Mosley, Frederick Richard	2442	22nd Sept. 1866	Lamps for burning paraffin oil and oth volatile liquid hydrocarbons.
Mosley, William, the younger	2062	11th Aug. 1866	Furnaces.
Мовя, Јони	1583	9th June 1866	Certain improvements in carding-engines.
Moss, Walter	652	3rd March 1866	An improved self-acting card distributor.
Mossant, Charles	2194	25th Aug. 1866	Improvements in felting hats and oth felted fabrics, and in apparatus for the same. (Patented by William Clark.)
Motay, Cyprien Marie [Tessié du.	84	10th Jan. 1866	Bleaching vegetable and animal fibres artissues. (Patented by Richard Archibald Brooms:
Motay, Cyprien Marie [Tessié du.	85	10th Jan. 1866	An improved method of producing oxygen (Patented by Richard Archibald Brooma
Motay, Cyprien Marie [Tessié du.	1726	28th June 1866	Obtaining alkaline permanganates. (Patented by Clinton Edgcumbe Brooma
Motay, Cyprien Marie [Tessié du.	2266	3rd Sept. 1866	A new method of bleaching fibres and fabri of vegetable origin. (Patented by Clinton Edgcumbe Brooma:
MOTT, JAMES	1522	31st May 1866	Improvements in the deodourizing of cru- rock or mineral oil, and in the preparation of lubricating oil therefrom. (Patented by John Henry Johnson.)
Mott, John William	857	6th Feb. 1866	An improvement in the treatment of rami rhea fibre, commonly called and know as china or india grasses.
MOTTEAU, ALFRED	374	7th Feb. 1866	Manufacture of axles for railway carriages. (Patented by Alexander Horace Brandon
Mouchonay-Sirand, Camille	2600	9th Oct. 1866	Cutting out of boots, shoes and gaiters all kinds. (Patented by William Edward Gedge.)
Moulton, Stephen	860	23rd March 1866	Improvements in the manufacture of sprin applicable to railway engines and carriage buffers and other purposes.

MUIR, HUGH CAMERON BELL MUIR, MATTHEW ANDREW - MULLER, GEORGE 950 3rd April 1866 MULLER, GEORGE 973 5th April 1866 MULLER, GEORGE 974 5th April 1866 MULLER, HUGO 1881 15th May 1866 MULLER, HUGO 1883 15th May 1866 MULLIAM ROBINSON MULLER, WILLIAM ROBINSON MULLEY, WILLIAM ROBINSON MULLIY, WILLIAM ROBINSON MULLIY, JOHN HENRY - MUNNON, NORMAN CARMI - 1848 10th May 1866 MUNTZ, PHILIP ALBERT - MUNTZ, PHILIP ALBERT - MURPHY, JAMES MURPHY, JAMES MURPHY, JAMES MURPHY, JOHN 1892 25th June 1866 MURPHY, WILLIAM JEREMIAH MURPHY, WILLIAM JEREMIAH MURPHY, WILLIAM JEREMIAH MURPHY, WILLIAM JEREMIAH MURRAY, CHARLES HENRY - MURRAY, CHARLES HENRY - MURRAY, CHARLES HENRY - MURRAY, DIGBY 1895 12th Nov. 1866 MURRAY, DIGBY 1896 12th Nov. 1866 MURRAY, DIGBY 1897 26th Qet. 1866 MURRAY, DIGBY 1898 18th June				
MOXON, THOMAS BEWSHER - 717 9th March 1866 Certain improvements in safes or simila depositories. MUIR, HUGH CAMERON BELL 1113 20th April 1866 16th Jan. 1866 114 19th Feb. 1866 114 19th Feb. 1866 115th May 1866 116th Jan.	Name of Patentee.	of	Date.	Subject-matter of Patent.
MUIR, HUGH CAMERON BELL MUIR, MATTHEW ANDREW - MUIR, MATTHEW ANDREW	Mountford, George	1915	23rd July 1866	Tanning of hides and skins.
MUIR, MATTHEW ANDREW - 514 16th Jan. 1866 19th Feb.	Moxon, Thomas Bewsher -	717	9th March 1866	Certain improvements in safes or similar depositories.
MUIE, MATTHEW ANDREW - 814 MUIE, MATTHEW ANDREW - 9060 MULER, GEORGE 950 MULLER, GEORGE 973 MULLER, GEORGE 973 MULLER, HUGO 1881 MULLER, HUGO 1881 MULLER, WILLIAM ROBINSON MULLER, WILLIAM ROBINSON MULLIN, JOHN HENRY - 745 MUNTZ, GEORGE HENRI MARC MUNTZ, GEORGE HENRI MARC MUNTZ, PHILIP ALBERT - 3762 MURRAY, DIGHY 1892 MURPHY, WILLIAM 1992 Sth April 1866 MURPHY, WILLIAM JEREMIAH MURPHY, WILLIAM 1892 MURPHY, WILLIAM JEREMIAH MURRAY, CHARLES HENRY - 1891 MURRAY, DIGHY 1895 MURRAY, DIGHY 2985 MURRAY, DIGHY 2985 MURRAY, PETER 2010 MUR	Muir, Hugh Cameron Bell	1113	20th April 1866	Valves for steam and other fluids.
MUIE, MATTHEW ANDREW - 2080 16th Aug. 1866 Improvements in making moulds for casting ground acrews for fence and other posts and in apparatus therefor. MÜLLER, GEORGE 973 1866 An improved double action piano-forte. (Patented by George Haseltine.) MÜLLER, HUGO 1383 15th May 1866 Treating the residues of pyrites usuall called burned ores. MÜLLER, WILLIAM ROBINSON 885 22nd March 1866 Closing hatchway skylights of ships an vessels. MULLIN, JOHN HENRY - 745 12th March 1866 Silding shutters for shop and other window Improved apparatus for manufacturing illuminating gas. MUNTZ, GEORGE HENRI MARC 1636 16th June 1865 Muntz, Philip Albert - 2762 26th Oct. 1866 Murphy, James 3271 13th Dec. 1866 Murphy, William - 1692 25th June 1866 Improved method of and apparatus for various other uses. MURPHY, WILLIAM 1692 25th June 1866 An improved method of and apparatus for mouth of the propelling ships or vessels. MURRAY, CHARLES HENRY - 1861 1866 Machinery for kneeding, con pressing, moulding or forming clay cother plastic substances, into bricks, tile pipes or other useful or ornaments articles. MURRAY, DIGBY 2862 12th Nov. 1866 Apparatus to the other wights, and in the apparatus used therefor. MURRAY, DIGBY 2965 12th Nov. 1866 Apparatus to the recipits, and in the apparatus used therefor. MURRAY, Peter 2010 3rd Aug. 1866 Machinery for forming the teeth of bew wheels.	,			
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MÜLLER, GRORGE 973 5th April 1866 MÜLLER, HUGO 1881 15th May 1866 MÜLLER, HUGO 1885 MÜLLIN, JOHN HENRY - 745 MÜNSON, NORMAN CARMI - 1848 MÜNSON, NORMAN CARMI - 1848 MÜNTZ, GEORGE HENRI MARC MÜNTZ, PHILIP ALBERT - 2762 MÜNTZ, PHILIP ALBERT - 2762 MÜNTZ, PHILIP ALBERT - 2762 MÜRPHY, JAMES 3271 MÜRPHY, JOHN 2140 MÜRPHY, WILLIAM - 1692 25th June 1866 MÜRPHY, WILLIAM JEREMIAH MÜRPHY, WILLIAM JEREMIAH MÜRRAY, ANDREW 321 MÜRRAY, CHARLES HENRY - 1881 MÜRRAY, CHARLES HENRY - 1881 MÜRRAY, DIGBY 2868 MÜRRAY, DIGBY 2868 MÜRRAY, DIGBY 2869 MÜRRAY, DIGBY 2869 MÜRRAY, PETER 2010 3rd Aug. 1866 MÜRRAY, PETER 2010 3rd Aug. 1866 MÜRRAY, PETER 2010 An improved carpenter's plane. An improved carpenter's plane. Treating the residues of pyrites usuall called burned ores. Treating the residues of pyrites usuall called burned ores. Treating the residues of pyrites usuall called burned ores. Treating the residues of pyrites usuall called burned ores. Treating the residues of pyrites usuall called burned ores. Treating the residues of pyrites usuall called burned ores. Treating the residues of pyrites usuall called burned ores. Treating the residues of pyrites usuall called burned ores. Treating the residues of pyrites usuall called burned ores. Treating the residues of pathoway skylights of ships an vessels. Stiding shutters for shop and other window. Manufacture of metal tubes. Furnaces for melting metals. Manufacture of metal tubes. Construction of vehicles to be used on rail ways. Improvements in the construction of spring suitable for railway carriages and for various other uses. An improved method of and apparatus for propelling ships or vessels. Steering apparatus. Muchal Murral Bee Machinery for making bricks. Improvements in raising and lowering ships or vessels. Mingroved method of lowering body other planter weights, and in the appara	Muir, Matthew Andrew -	2060	16th Aug. 1866	Improvements in making moulds for casting ground screws for fence and other posts, and in apparatus therefor.
MULLER, HUGO 1881 15th May 1866 MULLER, HUGO 1888 15th May 1866 MULLEY, WILLIAM ROBINSON 855 MULLEY, WILLIAM ROBINSON 855 MULLIN, JOHN HENRY - 745 MUNSON, NORMAN CARMI - 1848 MUNSON, NORMAN CARMI - 1848 MUNTZ, GEORGE HENRI MARC 1636 MUNTZ, PHILIP ALBERT - 342 MUNTZ, PHILIP ALBERT - 3762 MUNTZ, PHILIP ALBERT - 3762 MURPHY, JAMES 3871 MURPHY, JAMES 3871 MURPHY, JOHN 1692 MURPHY, WILLIAM JEREMIAH 1216 MURPHY, WILLIAM JEREMIAH 1216 MURRAY, ANDREW 321 MURRAY, CHARLES HENRY - 1687 MURRAY, CHARLES HENRY - 1881 MURRAY, CHARLES HENRY - 1884 MURRAY, DIGBY 2865 MURRAY, DIGBY 28	Müller, George	950	3rd April 1866	An improved double action piano-forte. (Patented by George Haseltine.)
MULLER, HUGO 1883 15th May 1866 22nd March 1866 22nd March 1866 12th March 1866 12th March 1866 12th March 1866 16th June 1865 1866	Müller, George	973	5th April 1866	· · ·
MULLIN, JOHN HENRY 1348 10th May 1866 1866	Müller, Hugo	1881	15th May 1866	Treating the residues of pyrites usually called burned ores.
MULLIN, JOHN HENRY - 745 12th March 1866 MUNSON, NORMAN CARMI - 1848 10th May 1866 Improved apparatus for manufacturing illuminating gas. MUNTZ, GEORGE HENRI MARC 1636 16th June 1866 Improved apparatus for manufacturing illuminating gas. MUNTZ, PHILIP ALBERT - 342 3rd Feb. 1866 Furnaces for melting metals. MURTZ, PHILIP ALBERT - 3270 26th Oct. 1866 Manufacture of metal tubes. MURPHY, JAMES 3271 13th Dec. 1866 Construction of vehicles to be used on rail ways. MURPHY, JOHN 2140 25th June 1866 Improvements in the construction of spring suitable for railway carriages and for various other uses. MURPHY, WILLIAM JEREMIAH 1216 30th April 1866 An improved apparatus for propelling ships or vessels. MURRAY, CHARLES HENRY - 1057 14th April 1866 Inprovements in the construction of spring suitable for railway carriages and for various other uses. MURRAY, CHARLES HENRY - 1057 14th April 1866 Improvements in the construction of spring suitable for railway carriages and for various other uses. MURRAY, CHARLES HENRY - 1057 14th April 1866 Improved method of and apparatus for propelling ships or vessels. MURRAY, DIGBY 1347 10th May 1866 Inprovements in raising and lowering ship boats and other weights, and in the apparatus used therefor. (Patented by Milliam Edward Newton.) Murray, DIGBY 2952 12th Nov. 1366 Apparatus to be used for lowering boats. MURRAY, DIGBY 2952 12th Nov. 1366 Apparatus to be used for lowering boats. MURRAY, PETER 2010 3rd Aug. 1866 Murray, for forming the teeth of bent wheels.			•	• •
MUNDAY, ORDITION CARMI - 1348 10th May 1866 Improved apparatus for manufacturing illuminating gas. MUNTZ, GEORGE HENRI MARC 1636 16th June 1866 Manufacture of certain fittings for gas steam and water tubes. MUNTZ, PHILIP ALBERT - 342 26th Oct. 1866 Furnaces for melting metals. MURPHY, JAMES 3271 13th Dec. 1866 Manufacture of metal tubes. MURPHY, JOHN 2140 21st Aug. 1866 Improvements in the construction of spring suitable for railway carriages and for various other uses. MURPHY, WILLIAM - 1692 25th June 1866 An improved spirit meter. (Patented by William Edward Newton.) MURPHY, WILLIAM JEREMIAH 1216 30th April 1866 An improved method of and apparatus for propelling ships or vessels. MURRAY, CHARLES HENRY - 1057 14th April 1866 Improved machinery for kneading, compressing, moulding or forming clay of other plastic substances, into bricks, tile pipes or other useful or ornaments articles. MURRAY, DIGBY 1347 10th May 1866 Improvements in raising and lowering ship boats and other weights, and in the apparatus used therefor. (Patented by Thomas Thoraton.) MURRAY, DIGBY 2952 12th Nov. 1366 7th July 1866 The July 1866 Preparation and application of surfaces for disposing and picking up coin. MURRAY, PETER 2010 3rd Aug. 1866 Manufacture of certain fittings for gas steam and water tubes. Manufacture of certain fittings for gas steam and water tubes. Manufacture of certain fittings for gas steam and water tubes. Construction of vehicles to be used on rail ways. Murpovements in the construction of spring suitable for railway carriages and for various other passing suitable for railways. Improvements in the construction of spring suitable for railways. Steering apparatus. Improved method of and apparatus for other passing, moulding or forming clay of other passing moulding or forming the spring moulding or forming the teeth of bere wheels.	Mulley, William Robinson	855	22nd March 1866	
MUNTZ, GEORGE HENRI MARC MUNTZ, PHILIP ALBERT - 342 3rd Feb. 1866 MUNTZ, PHILIP ALBERT - 2762 26th Oct. 1866 MURPHY, JAMES 3271 13th Dec. 1866 MURPHY, JOHN 2140 MURPHY, WILLIAM 1692 25th June 1866 MURPHY, WILLIAM JEREMIAH 1216 30th April 1866 MURRAY, CHARLES HENRY - 1687 MURRAY, CHARLES HENRY - 1881 MURRAY, CHARLES HENRY - 1881 MURRAY, DIGBY 2982 MURRAY, DIGBY 2982 MURRAY, JOHN 1797 MURRAY, PETER 2010 MURRAY, PETER 2010 MURRAY, PETER 2010 MICHARAY AND REW 2010 MURRAY, PETER 2010 MURRAY, PETER 2010 MURRAY MACHINETY for forming the teeth of berwheels. MINING MACHINETY for forming the teeth of berwheels.		745		Sliding shutters for shop and other windows.
MUNTZ, PHILIP ALBERT - 342 3rd Feb. 1866 Furnaces for melting metals. MUNTZ, PHILIP ALBERT - 2762 26th Oct. 1866 Manufacture of metal tubes. MURPHY, JAMES 3271 13th Dec. 1866 Construction of vehicles to be used on rail ways. MURPHY, JOHN 2140 21st Aug. 1866 Improvements in the construction of spring suitable for railway carriages and for various other uses. MURPHY, WILLIAM - 1692 25th June 1866 An improved spirit meter. (Patented by William Edward Newton.) MURRAY, ANDREW - 321 1st Feb. 1866 Improved method of and apparatus for propelling ships or vessels. Steering apparatus. MURRAY, CHARLES HENRY - 1057 14th April 1866 Improved machinery for kneading, compressing, moulding or forming clay of other plastic substances, into bricks, tile pipes or other useful or ornaments articles. MURRAY, DIGBY 1347 10th May 1866 Improvements in raising and lowering ship boats and other weights, and in the apparatus used therefor. (Patented by Thomas Thornton.) MURRAY, DIGBY 2952 12th Nov. 1366 Apparatus to be used for lowering boats. MURRAY, PETER 2010 3rd Aug. 1866 Machinery for forming the teeth of bevine wheels.	Munson, Norman Carmi -	1348	10th May 1866	minating gas.
MURPHY, JAMES 2762 26th Oct. 1866 MURPHY, JAMES 2140 21st Aug. 1866 MURPHY, JOHN 2140 21st Aug. 1866 MURPHY, WILLIAM 1692 25th June 1866 MURPHY, WILLIAM JEREMIAH 1216 30th April 1866 MURRAY, ANDREW 321 1st Feb. 1866 MURRAY, CHARLES HENRY - 1057 MURRAY, CHARLES HENRY - 1581 8th June 1866 MURRAY, DIGBY 1347 MURRAY, DIGBY 2952 12th Nov. 1866 Murray, Peter 2010 3rd Aug. 1866 Manufacture of metal tubes. Manufacture of metal tubes. Construction of vehicles to be used on rail ways. Improvements in the construction of spring suitable for railway carriages and for various other uses. An improved method of and apparatus for propelling ships or vessels. Steering apparatus. Improved machinery for kneading, com pressing, moulding or forming clay of other plastic substances, into bricks, tile pipes or other useful or ornaments articles. MURRAY, DIGBY 1866 Murray, John 2952 12th Nov. 1866 Murray, John 3762 Murray, John 3763 Murray, Peter 2010 3rd Aug. 1866 Manufacture of metal tubes. Construction of vehicles to be used on rail ways. Limprovements in the construction of spring suitable for railway carriages and for various other uses. An improved spirit meter. (Patented by William Edward Newton.) An improved method of and apparatus for propelling ships or vessels. Steering apparatus. Improved machinery for kneading, com pressing, moulding or forming clay of other plastic substances, into bricks, tile pipes or other useful or ornaments articles. Murray, Digby 1866 Murray, Digby 1866 Murray, Digby 2952 12th Nov. 1866 Machinery for briefly digital transfer of disposing and picking up coin. Machinery for forming the teeth of bever wheels.	Muntz, George Henri Marc	1636	16th June 1866	Manufacture of certain fittings for gas, steam and water tubes.
MURPHY, JAMES 3271 13th Dec. 1866 MURPHY, JOHN 2140 21st Aug. 1866 MURPHY, WILLIAM 1692 25th June 1866 MURPHY, WILLIAM JEREMIAH 1216 30th April 1866 MURRAY, ANDREW 321 1st Feb. 1866 MURRAY, CHARLES HENRY - 1057 MURRAY, CHARLES HENRY - 1581 MURRAY, DIGBY 1347 MURRAY, DIGBY 2952 12th Nov. 1866 MURRAY, JOHN 2010 3rd Aug. 1866 Construction of vehicles to be used on rail ways. Improvements in the construction of spring suitable for railway carriages and for various other uses. Improved method of and apparatus for propelling ships or vessels. Steering apparatus. Improved method of and apparatus for propelling ships or vessels. Steering apparatus. Improved method of and apparatus. Improved machinery for kneading, compressing, moulding or forming clay of other plastic substances, into bricks, tile pipes or other useful or ornaments articles. Murray, Digby 1866 Murray, Digby 2952 12th Nov. 1866 Murray, John 2952 12th Nov. 1866 Murray, John 3010 3rd Aug. 1866 Machinery for forming the teeth of bernytheles.	MUNTZ, PHILIP ALBERT -	342	3rd Feb. 1866	Furnaces for melting metals.
MURPHY, JOHN 2140 21st Aug. 1866 MURPHY, WILLIAM 1692 25th June 1866 MURPHY, WILLIAM JEREMIAH 1216 30th April 1866 MURRAY, ANDREW 321 1st Feb. 1866 MURRAY, CHARLES HENRY - 1057 MURRAY, CHARLES HENRY - 1581 MURRAY, DIGBY 1347 MURRAY, DIGBY 2952 MURRAY, DIGBY 2952 MURRAY, DIGBY 2952 MURRAY, DIGBY 1797 MURRAY, DIGBY 2952 MURRAY, DIGBY 2952 12th Nov. 1866 MURRAY, DIGBY 1797 MURRAY, DIGBY 2952 MURRAY, DIGBY 2953 MURRAY, DIGBY 2954 MURRAY, DIGBY 2955 MURRA	MUNTZ, PHILIP ALBERT -	2762	26th Oct. 1866	Manufacture of metal tubes.
MURPHY, WILLIAM 1692 25th June 1866 An improved spirit meter. (Patented by William Edward Newton.) MURPHY, WILLIAM JEREMIAH 1216 30th April 1866 An improved method of and apparatus for propelling ships or vessels. MURRAY, ANDREW 321 1st Feb. 1866 Steering apparatus. MURRAY, CHARLES HENRY - 1057 14th April 1866 Improved machinery for kneading, compressing, moulding or forming clay of other plastic substances, into bricks, tile pipes or other useful or ornaments articles. MURRAY, DIGBY 1347 10th May 1866 Machinery for making bricks. MURRAY, DIGBY 2952 12th Nov. 1866 Apparatus used therefor. (Patented by Thomas Thornton.) MURRAY, JOHN 1797 7th July 1866 Preparation and application of surfaces for disposing and picking up coin. MURRAY, PETER 2010 3rd Aug. 1866 Machinery for forming the teeth of bever wheels.	Murphy, James	3271	13th Dec. 1866	Construction of vehicles to be used on rail- ways.
MURRAY, ANDREW 321 lst Feb. 1866 MURRAY, CHARLES HENRY - 1057 MURRAY, CHARLES HENRY - 1581 MURRAY, DIGBY 1347 MURRAY, DIGBY 2952 MURRAY, DIGBY 2953 MURRAY, DIGBY 2954 MURRAY, DIGBY 2955 Machinery for making bricks. Machinery for making bricks. Machinery for making bricks. Preparatus used therefor. MURRAY, DIGBY 2955 Machinery for forming the teeth of bever wheels.	Murphy, John	2140	21st Aug. 1866	Improvements in the construction of springs suitable for railway carriages and for various other uses.
MURRAY, ANDREW 321 lst Feb. 1866 Steering apparatus. MURRAY, CHARLES HENRY - 1057 14th April 1866 Improved machinery for kneading, compressing, moulding or forming clay of other plastic substances, into bricks, tile pipes or other useful or ornaments articles. MURRAY, CHARLES HENRY - 1581 8th June 1866 Machinery for making bricks. MURRAY, DIGBY 1347 10th May 1866 Improvements in raising and lowering ship boats and other weights, and in the apparatus used therefor. MURRAY, DIGBY 2952 12th Nov. 1366 Apparatus to be used for lowering boats. MURRAY, JOHN 1797 7th July 1866 Preparation and application of surfaces for disposing and picking up coin. MURRAY, PETER 2010 3rd Aug. 1866 Machinery for forming the teeth of berewheels.	MURPHY, WILLIAM	1692	25th June 1866	An improved spirit meter. (Patented by William Edward Newton.)
MURRAY, CHARLES HENRY - 1057 14th April 1866 Improved machinery for kneading, compressing, moulding or forming clay of other plastic substances, into bricks, tile pipes or other useful or ornaments articles. MURRAY, CHARLES HENRY - 1581 8th June 1866 Machinery for making bricks. MURRAY, DIGBY 1347 10th May 1866 Improvements in raising and lowering ship boats and other weights, and in the apparatus used therefor. MURRAY, DIGBY 2952 12th Nov. 1866 (Patented by Thomas Thornton.) MURRAY, JOHN 1797 7th July 1866 Preparation and application of surfaces for disposing and picking up coin. MURRAY, PETER 2010 3rd Aug. 1866 Machinery for forming the teeth of bery wheels.	Murphy, William Jeremiah	1216	30th April 1866	An improved method of and apparatus for propelling ships or vessels.
pressing, moulding or forming clay of other plastic substances, into bricks, tile pipes or other useful or ornaments articles. MURRAY, CHARLES HENRY - 1581 8th June 1866 Machinery for making bricks. MURRAY, DIGBY 1347 10th May 1866 Improvements in raising and lowering ship boats and other weights, and in the apparatus used therefor. (Patented by Thomas Thornton.) MURRAY, JOHN 1797 7th July 1866 Preparation and application of surfaces for disposing and picking up coin. MURRAY, PETER 2010 3rd Aug. 1866 Machinery for forming the teeth of bever wheels.	MURRAY, ANDREW	821		• • •
Murray, Digram 1347 10th May 1866 Improvements in raising and lowering ship boats and other weights, and in the apparatus used therefor. (Patented by Thomas Thornton.) Murray, Digram 2952 12th Nov. 1366 Apparatus to be used for lowering boats. Murray, John 1797 7th July 1866 Preparation and application of surfaces for disposing and picking up coin. Murray, Peter 2010 3rd Aug. 1866 Machinery for forming the teeth of bever wheels.	MURRAY, CHARLES HENRY -	1057	14th April 1866	pressing, moulding or forming clay or other plastic substances, into bricks, tiles, pipes or other useful or ornamental
boats and other weights, and in the apparatus used therefor. (Patented by Thomas Thornton.) MURRAY, DIGBY 2952 12th Nov. 1366 MURRAY, JOHN 1797 7th July 1866 MURRAY, PETER 2010 3rd Aug. 1866 Machinery for forming the teeth of beynwheels.	MURRAY, CHARLES HENRY -	1581		•
Murray, John 1797 7th July 1866 Preparation and application of surfaces for disposing and picking up coin. Murray, Peter 2010 3rd Aug. 1866 Machinery for forming the teeth of berewheels.	MURBAY, DIGBY	1347	10th May 1866	
MURRAY, PETER 2010 3rd Aug. 1866 disposing and picking up coin. Machinery for forming the teeth of bery wheels.	Murray, Digby		12th Nov. 1866	Apparatus to be used for lowering boats.
wheels.	Murray, John	1797	7th July 1866	Preparation and application of surfaces for disposing and picking up coin.
l — — — ll <u>a a a a a a a a a a a a a a a a a a a</u>	Murbay, Peter	2010	3rd Aug. 1866	Machinery for forming the teeth of bevel wheels.
MUSCHAMP, JOHN BELL - 708 8th March 1866 Steam-engines.	Muschamp, John Bell -	708	8th March 1866	Steam-engines.
Muschamp, John Bell - 1248 2nd May 1866 An improved construction of pocket for male and female attire.	Muschamp, John Bell -	1248	2nd May 1866	An improved construction of pocket for male and female attire.
Muschamp, John Bell - 3293 15th Dec. 1866 An improved explosive substance.	Muschamp, John Bell -	8293	15th Dec. 1866	An improved explosive substance.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent,
Musciacco, Emilio	810	19th March 1866	A new or improved pneumatic steam dredging machine. (Patented by William Edward Gedge.)
Musciacco, Emilio	2407	19th Sept. 1865	A new or improved pneumatic steam dredg- ing machine. (Patented by William Edward Gedge.)
Muspratt, Edmund Knowles	1002	7th April 1866	Burning or calcining and preparing for burning or calcining copper, iron and other ores containing sulphur, for the manufac- ture of sulphuric acid.
Mustel, Victor	1220	30th April 1866	Percussive musical instruments. (Patented by John Henry Johnson.)
Myerns, Alfred	1778	4th July 1866	Construction and arrangement of the fasten- ings of leggings, gaiters, antigropelas and such like articles of dress.
Myers, Edward	783	10th March 1866	Arrangement and construction of meters or apparatus for measuring water or other fluids.
Myers, George	1578	8th June 1866	An improved composition for journal boxes or bearings. (Patented by William Edward Newton.)
Myers, Maurice	602	27th Feb. 1866	A new or improved apparatus for the use of smokers, parts of which apparatus are applicable to the securing or holding together of cigarette and other papers, as well as securing or connecting together straps and bands.
Myers, Michael	2619	10th Oct. 1866	Improvements in the construction of trunks, portmanteaus and boxes, parts of which improvements are also applicable to other useful purposes.
Myers, Morris	909	29th March 1866	An improved apparatus for sifting sugar or flour or other meals, or separating the smaller from the grosser particles in sauces and condiments.
Mygrs, Myer	602	27th Feb. 1866	A new or improved apparatus for the use of smokers, parts of which apparatus are applicable to the securing or holding together of cigarette and other papers, as well as securing or connecting together straps and bands.
Myers, Walter Chrimes -	733	10th March 1866	Arrangement and construction of meters or apparatus for measuring water or other fluids.

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							Means or apparatus for drying and stenter- ing woven fabrics.
Nadal, Jean -	-	-	-	1652	20th June 18	366	A new or improved bottle fountain. A magic camera.
NADAUD, OCTAVE	-	•	-	8116	27th Nov. 18	366	A magic camera.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NAIR, ANTOINE MC	2594	8th Oct. 1866	Brick making machines. (Patented by George Tomlinson Bousfield.)
NALL, JAMES	517	20th Feb. 1866	An improved method of manufacturing name plates of metal, and in producing ornamental devices upon metal plates.
Nally, Edward Mc	1812	11th July 1866	Machinery or apparatus for grinding and polishing circular saws and other articles.
Nangle, Walter Chidiock	3249	10th Dec. 1866	Improvements in armour plating or pro- tecting vessels of war, forts and other like structures, and in the manufacture of the plates and material employed therein.
Napier, James Murdoch -	108	12th Jan. 1866	Improvements in weighing-machines and in apparatus for reducing to weight, part of which improvements are applicable for feeding blanks to coining presses and to other machines.
Napier, Johnstone	3433	29th Dec. 1866	Preparation of food, of a substance to be employed in place of malt, and for the medication of food for animals.
Napier, Robert	472	14th Feb. 1866	Building ships of war.
Napier, Robert	2676	16th Oct. 1866	Building ships and vessels of war.
Napier, Robert David -	2881	6th Nov. 1866	Friction breaks and apparatus for giving motion to machinery.
Napier, William Donald -	544	21st Feb. 1866	Fountains.
NASLOT, MARIE	1974	31st July 1866	An improved spade or digging implement. (Patented by William Edward Gedge.)
NATION, WILLIAM BRYER -	822	lst Feb. 1866	Purification and hardening of paraffin wax.
Naught, John Mc	984	5th April 1866	Machinery for washing and drying wool and other fibrous materials.
NAUGHT, WILLIAM Mc, jun ^r	984	5th April 1866	Machinery for washing and drying wool and other fibrous materials.
Naylor, John William -	2807	30th Oct. 1866	An improved mode of covering metal rollers used in the manufacture of flax, hemp, jute, silk and other fibrous substances, with leather.
NAYLOR, WILLIAM	821	20th March 1866	Prevention or consumption of smoke.
Naylor, William	1824	11th July 1866	<u>-</u>
Néel, Edouard	3023	17th Nov. 1866	1
Neidlinger, Frederick -	1884	19th July 1866	Sewing-machines. (Communicated by Charles Crosby and John Schenck.)
Neil, David M°	2357	13th Sept. 1866	Improvements in hydraulic gas chandeliers, and in gas regulators applicable thereto and to other gas-burners or meters.
NEILL, WILLIAM, the younger	2467	25th Sept. 1866	Improvements applicable to the manufacture of chloride of lime or bleaching powder, and in apparatus connected therewith.
Nelson, Edward	2269	4th Sept. 1866	Mode of treating certain fibrous vegetable substances so as to render them suitable for the manufacture of textile and other fabrics.
Nelson, James	2843	2nd Nov. 1866	An "auxiliary smith's fire."
Nelson, Mortimer	1186	27th April 1866	New or improved machinery for making impressions or forming moulds for stereotype or electrotype plates.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Nelson, Samuel	507	17th Feb. 1866	Shuttle tongues.
Nelson, Thomas	887	26th March 1866	Production of blocks and plates for printing.
NETHERSOLE, WILLIAM [EDWARD.	1886	20th July 1866	Facilitating the tipping of coal or other material from railway wagons, and for the prevention of breakage of coal in tipping, also waste of coal while tipping.
NEUMEYER, GUSTAV ADOLPH	8810	17th Dec. 1866	Gunpowder for mining purposes.
NEUSCHELLER, THEODORE -	2504	27th Sept. 1866	Means of securing pocket-books and other portable articles, on the person. (Patentedby Friedrich Wilhelm Constantin Dromtra.)
Neviers, Albrecht De -	3283	14th Dec. 1866	An improvement on aledges.
Neville, Thomas	1538	2nd June 1866	A new or improved means of propelling vessels.
New England Vice Company	8174	3rd Dec. 1866	Bench vices. (Patented by Benjamin Joseph Barnard Mills.)
Newbold, Thomas William [Hill.	2162	23rd Aug. 1866	Manufacture of cornices, cornice pole ends, curtain bands and curtain pins.
NEWCOME, HENRY JUSTINIAN	2896	18th Sept. 1866	Improved apparatus for heating or warming buildings.
Newell, Benjamin Collins	2588	8th Oct. 1866	Piano-fortes.
Newey, James Clement -	2892	7th Nov. 1866	Certain improvements in the manufacture of clasps for stay busks, braces, belts, garters, boots, leggings, gloves and bands.
Newey, Thomas	2373	15th Sept. 1866	Improvements in clips or fastenings for the bands of purses and pocket books, and for other bands and for other like pur- poses.
NEWMAN, PHILIP HARRY -	2665	15th Oct. 1866	Manufacture of coloured glass windows and other translucent surfaces.
NEWTON, ALFRED VINCENT -	26	3rd Jan. 1866	Preparation of pigments. (Communicated by Stuart Gwynn.)
Newton, Alfred Vincent :-	45	5th Jan. 1866	Improved apparatus for feeding steam- boilers. (Communicated by Joseph Napoleon Bonaparte Bond and William Ritchie.)
Newton, Alfred Vincent -	186	15th Jan. 1866	Construction of electric clocks. (Communicated by Max Levin.)
Newton, Alfred Vincent -	178	19th Jan. 1866	Improved machinery for spinning yarn. (Communicated by Carl Schneichel.)
NEWTON, ALFRED VINCENT -	264	26th Jan. 1866	An improved mode of treating fur, wool and hair. (Communicated by Alfred Clark Brush.)
Newton, Alfred Vincent -	333	2nd Feb. 1866	Improved machinery for breaking hemp and flax. (Communicated by Joseph Holford Siddall.)
NEWTON, ALFRED VINCENT -	436	12th Feb. 1866	An improved construction of port stopper applicable to turret ships and land and floating batteries. (Communicated by John Ericsson.)
NEWTON, ALFRED VINCENT -	487	12th Feb. 1866	Improved machinery for manufacturing paper collars, cuffs, wristbands and other articles of similar character. (Communicated by Edwin Blood.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Newton, Alfred Vincent -	486	15th Feb. 1866	An improved mode of and apparatus for generating superheated steam. (Communicated by Ebenezer Danford.)
Newton, Alfred Vincent -	640	2nd March 1866	Improved apparatus for loading waggons with hay, straw and other like products. (Communicated by William Hervey Elliot.)
. Newton, Alfred Vincent -	672	5th March 1866	An improved process of bleaching. (Communicated by John Jordan Eckel, Isaac Smith Schuyler and James Waring Gillies.)
Newton, Alfred Vincent -	684	6th March 1866	An improved mode of and apparatus for working air-engines. (Communicated by John Bowman Atwater.)
Newton, Alfred Vincent -	727	9th March 1866	An improvement in the melting of iron. (Communicated by Ernest Christian Haserick.)
Newton, Alpred Vincent -	749	12th March 1866	An improved construction of gravitating level. (Communicated by Henri Arquiene René Moën.)
Newton, Alfred Vincent -	872	24th March 1866	An improved construction of power hammer. (Communicated by Philip Syng Justice.)
Newton, Alfred Vincent -	873	24th March 1866	An improved pencil for writing or marking upon textile fabrics. (Communicated by Edward Augustus Whitney, Henry Roberts and William Bainbridge Hale.)
Newton, Alpred Vincent -	874	24th March 1866	Hoisting apparatus. (Communicated by Samuel Munson Long- ley and Andrew Conkey Getty.)
Newton, Alpred Vincent -	1001	7th April 1866	An improved mode of and apparatus for casting railway wheels and other articles of cast steel. (Communicated by John Blake Tarr.)
Newton, Alfred Vincent -	1069	16th April 1866	Power looms. (Communicated by Philo Ward Hart and Daniel Clark Tibbals.)
Newton, Alfred Vincent -	1104	19th April 1866	An improvement in the manufacture of bar iron and steel. (Communicated by Bernard Lauth.)
Newton, Alfred Vincent -	1129	21st April 1866	Grates for furnaces and fire-places. (Communicated by Addison Calvin Fletcher and John Hughes.)
Newton, Alfred Vincent -	1207	28th April 1866	Manufacture of steel. (Communicated by Edwin Louis Bomeisler.)
Newton, Alfred Vincent -	1948	10th May 1866	Improved apparatus for manufacturing illuminating gas. (Communicated by Levi Stevens and Norman Carmi Munson.)
NEWTON, ALFRED VINCENT -	1441	22nd May 1866	Rotary steam-engines. (Communicated by Matthias Wharton Baldwin.)
Newton, Alfred Vincent -	1532	lst June 1866	Improvements in machinery for burring and cleansing wool and other fibrous substances. (Communicated by Calvin Luther Goddard.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NEWTON, ALFRED VINCENT -	1674	22nd June 1866	An improved construction of rotary engine. (Communicated by Henry John Behrens, Henry Curtis Dart and Edward Dart.)
NEWTON, ALFRED VINCENT -	1779	5th July 1866	
Newton, Alfred Vincent -	1783	5th July 1866	Improved steering apparatus. (Communicated by Robert Creuzbaur.)
Newton, Alfred Vincent -	1785	5th July 1866	Construction of connecting links or hooks. (Communicated by Robert Creuzbaur.)
NEWTON, ALFRED VINCENT -	1804	9th July 1866	An improvement applicable to bobbins used in preparing and spinning machinery. (Communicated by Benjamin Wilbur.)
Newton, Alpred Vincent -	1805	9th July 1866	An improved compound for coating ships' bottoms and other surfaces. (Communicated by Charles James Eames.)
NEWTON, ALFRED VINCENT -	1821	11th July 1866	boot fronts. (Communicated by John P. Jamison.)
Newton, Alfred Vincent -	1836	12th July 1866	An improved construction of folding chair. (Communicated by Benjamin Johns Harrison and James Condie.)
NEWTON, ALFRED VINCENT -	1864	17th July 1866	Improved machinery for spinning yarn. (Communicated by Carl Schneichel.)
Newton, Alfred Vincent -	2056	9th Aug. 1866	Machinery for manufacturing envelopes, partly also applicable to other purposes. (Communicated by Edwin Allen and John Turner.)
NEWTON, ALPRED VINCENT -	2082	14th Aug. 1866	An improved mode of fastening boiler tubes. (Communicated by James Bowden, Horace Theall and William Henry Cobanks.)
Newton, Alfred Vincent -	2117	17th Aug. 1866	
Newton, Alfred Vincent -	2285	5th Sept. 1866	Improvements in the construction of electric clocks, and in the means employed in working the same. (Communicated by Ernest Van Bruyssel.)
Newton, Alfred Vincent -	2319	10th Sept. 1866	Manufacture of seamless metallic tubes. (Communicated by William Forman Brooks.)
Newton, Alpred Vincent -	2480	21st Sept. 1866	An improved construction of weight. (Communicated by Daniel Baker Lacy, Isaac Augustus Lacy and Thomas Thompson Lacy.)
NEWTON, ALFRED VINCENT -	2456	24th Sept. 1866	Apparatus for steering vessels. (Communicated by Robert Creuzbaur.)
Newton, Alpred Vincent -	2466	25th Sept. 1866	Improvements in steam-engines, partly applicable to pumps and other apparatus in which pistons or plungers are used. (Communicated by John Benjamin Root.)
Newton, Alfred Vincent -	2496	27th Sept. 1866	An improvement in the process of distilling petroleum and other oils. (Communicated by Orazio Lugo and Theodore Otto Ludwig Schrader.)
Newton, Alfred Vincent -	2680	11th Oct. 1866	

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Newton, Alfred Vincent -	2673	16th Oct. 186	6 Construction of steam-boilers. (Communicated by Henry Feyk and George Towle Emery.)
NEWTON, ALFRED VINCENT -	2674	16th Oct. 186	
NEWTON, ALFRED VINCENT -	2685	17th Oct. 186	Process of distilling petroleum and other oils or substances. (Communicated by Orazio Lugo and Theodore Otto Ludwig Schrader.)
NEWTON, ALFRED VINCENT -	2725	22nd Oct. 186	-
NEWTON, ALPRED VINCENT -	2726	22nd Oct. 186	An improved fastening for baling bands. (Communicated by Robert Dillon.
Newton, Alfred Vincent -	2735	23rd Oct. 186	Manufacture of rails for railways. (Communicated by Samuel L. Potter.)
NEWTON, ALFRED VINCENT -	2806	30th Oct. 186	6 Certain improvements in machinery for spinning, doubling and twisting wool and other fibrous materials. (Communicated by Charles B. Hoard.)
Newton, Alpred Vincent -	2903	7th Nov. 186	6 Reaping-machines. (Communicated by Jacob William Schuckers.)
Newton, Alfred Vincent -	2958	12th Nov. 186	6 Certain improvements in coal oil lamps. (Communicated by George Hall.)
Newton, Alfred Vincent -	3009	16th Nov. 186	A new manufacture of ladies' skirts. (Communicated by Morris Opper.)
Newton, Alfred Vincent -	3058	21st Nov. 186	Improved machinery for manufacturing spikes and rivets. (Communicated by John Oliver Reilley and Alexander Wiley.)
Newton, Alfred Vincent -	3123	27th Nov. 186	Improved machinery for making cast steel railway wheels and other castings in metal. (Communicated by John Blake Tarr.)
Newton, Alfred Vincent -	3289	14th Dec. 186	
Newton, Alfred Vincent -	3314	17th Dec. 186	An improved construction of elevator. (Communicated by Reuben Martin Van Sickler.)
Newton, Alfred Vincent -	8829	18th Dec. 186	Machinery for spinning yarn. (Communicated by John Rich.)
NEWTON, ALFRED VINCENT -	3355	20th Dec. 186	An improved compound for coating ships' bottoms and other surfaces. (Communicated by Charles James Bames.)
NEWTON, ALFRED VINCENT -	8408	28th Dec. 186	An improved drying apparatus. (Communicated by Gilbert Daniel Jones.)
NEWTON, ALFRED VINCENT -	3418	29th Dec. 186	An improved safety attachment to carriages. (Communicated by Claude Ducrux.)
NEWTON, HENRY EDWARD -	135	15th Jan. 186	and commode pans. (Communicated by Ernest Mangeon.)
NEWTON, HENRY EDWARD -	478	14th Feb. 186	Optical instruments. (Communicated by Leon Jaubert.)
NEWTON, HENRY EDWARD -	851	22nd March 186	Apparatus for propelling railway carriages upon inclines. (Communicated by Theophile Joseph Finet.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NEWTON, HENRY EDWARD -	917	29th March 1866	Apparatus for decorticating rice and other grain. (Communicated by Edmond Théodore Ganneron.)
NEWTON, HENRY EDWARD -	1206	28th April 1866	Engines for obtaining rotary motion by means of steam, gas or other fluids. (Communicated by Marie Joseph Denis Farcot and Joseph Perrigault.)
NEWTON, HENRY EDWARD -	1525	31st May 1866	Construction of water cocks or hydrants. (Communicated by Jean Baptiste Denans.)
NEWTON, HENRY EDWARD -	2241	30th Aug. 1866	An improved process for treating and pre- serving beer and other fermented liquors. (Communicated by Eugene Velten.)
NEWTON, ROBERT	878	24th March 1866	Improved means or apparatus for generating steam in steam-boilers.
Newton, Robert	1901	21st July 1866	Improved means or apparatus for consuming smoke in the furnaces of steam-boilers, also in other furnaces where applicable.
NEWTON, WILLIAM EDWARD -	31	4th Jan. 1866	Distillation. (Communicated by Orazio Lugo.)
NEWTON, WILLIAM EDWARD -	32	4th Jan. 1866	Improvements in the manufacture of augers and in the tools or instruments to be used in such manufacture. (Communicated by Russell Jennings.)
NEWTON, WILLIAM EDWARD -	81	10th Jan. 1866	Shears or scissors. (Communicated by Richard March Hoe.)
NEWTON, WILLIAM EDWARD -	188	20th Jan. 1866	Improved machinery for pressing and ironing hat bodies. (Communicated by Nicholas Bunning Hooper.)
Newton, William Edward -	474	14th Feb. 1866	Machinery for making collars, cuffs, wrist- bands and other similar articles of dress. (Communicated by Henry Francis Knapp.)
NEWTON, WILLIAM EDWARD -	529	20th Feb. 1866	Improvements in breech-loading fire-arms, and in cartridges for the same. (Communicated by Hiram Berdan.)
NEWTON, WILLIAM EDWARD -	578	24th Feb. 1866	Breech-loading fire-arms. (Communicated by Theodore Thaddeus Sobrieski Laidley.)
NEWTON, WILLIAM EDWARD -	606	27th Feb. 1866	An improved process of and apparatus for distilling petroleum and other liquid substances. (Communicated by John Pericles Vincent, John Stevens Richards, Orange Noble, Charles Harrison Lovrein, Henry Rawle and Levi Spaulding Fales.)
Newton, William Edward -	616	28th Feb. 1866	Process of and apparatus for the distillation of tar and other substances. (Communicated by John Pericles Vincent, John Stevens Richards, Orange Noble, Charles Harrison Lovrein, Henry Rawle and Levi Spaulding Fales.)
NEWTON, WILLIAM EDWARD -	617	28th Feb. 1866	An improved process of and apparatus for extracting tan, bark and other vegetable materials. (Communicated by Samuel White Pingree.)
NEWTON, WILLIAM EDWARD -	651	3rd March 1866	Operating railway carriage brakes. (Communicated by Samuel McCambridge.)
NEWTON, WILLIAM EDWARD -	673	5th March 1866	Construction of ordnance. (Communicated by James Tyler Ames.)

New] ALI	IIADEI	CAL INDEX OF	PATENTEES
Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NEWTON, WILLIAM EDWARD -	728	9th March 1866	Paddle-wheels for propelling vessels. (Communicated by Addison Calvin Fletcher.)
NEWTON, WILLIAM EDWARD -	827	20th March 1866	Process of and apparatus for distilling petroleum and other mineral oils. (Communicated by Edward Braggins Matthew Patrick Ewing and Hiran Bond Everest.)
NEWTON, WILLIAM EDWARD -	839	21st March 1866	Rotary steam-engines. (Communicated by Andreas Herlöv.)
NEWTON, WILLIAM EDWARD -	862	23rd March 1866	Improvements applicable to the treatmen of the substances used in the purification of gas. (Communicated by Herr Doctor Deicke.)
NEWTON, WILLIAM EDWARD -	951	3rd April 1866	Power looms for weaving. (Communicated by William Breitenstein.)
NEWTON, WILLIAM EDWARD -	964	4th April 1866	Manufacture of carpets and other goods having a raised terry or pile face. (Communicated by the American Water proof Cloth Company.)
NEWTON, WILLIAM EDWARD -	1119	20th April 1866	Working the switches or points upon railways. (Communicated by Auguste Louis Risbourg.)
NEWTON, WILLIAM EDWARD -	1130	21st April 1866	Mode of and apparatus for expressing liquids from pulpy and semi-fluid substances. (Communicated by Louis Pierre Robert de Massy.)
NEWTON, WILLIAM EDWARD -	1833	9th May 1866	Rotary blowers. (Communicated by Francis Marion Roots and Philander Highley Roots.)
Newton, William Edward -	1374	14th May 1866	An improvement in metallic barrels and other vessels for containing oil, water and other fluids. (Communicated by William Stuben De Zeng.)
NEWTON, WILLIAM EDWARD -	1396	16th May 1866	Breech-loading fire-arms. (Communicated by John Burke.)
NEWTON, WILLIAM EDWARD -	1404	17th May 1866	An improved method of and instrument for measuring the depth of water and the compression of liquids. (Communicated by Sidney Edwards Morse and Gilbert Livingston Morse.)
NEWTON, WILLIAM EDWARD -	1440	22nd May 1866	Machinery or apparatus to be employed in dyeing yarns. (Communicated by Albert Wever.)
NEWTON, WILLIAM EDWARD -	1503	29th May 1866	An improved mode of connecting metallic wires. (Communicated by Nathan Block.)
NEWTON, WILLIAM EDWARD -	1526	31st May 1866	Improvements in railways and in propelling carriages and vessels by means of ropes or chains. (Communicated by Charles Thompson Harvey.)
NEWTON, WILLIAM EDWARD -	1556	5th June 1866	Improved machinery for gumming and printing envelopes and wrappers for letters, newspapers and small parcels. (Communicated by Henry Clay Berlin and George Henry Jones.)

Name of Patentee.	Number of Patent.	Date.		Subject-matter of Patent.
NEWTON, WILLIAM EDWARD -	1578	7th June	1866	Jars for preserving fruits, meats and other substances. (Communicated by John Jay Squire.)
NEWTON, WILLIAM EDWARD -	1574	7th June	1866	Drilling machines. (Communicated by Warren Lyon, David Van Gelder Isaacs, Alexander Mc Andrew and Samuel Wann.)
NEWTON, WILLIAM EDWARD -	1578	8th June	1866	An improved composition for journal boxes or bearings. (Communicated by George Myers and George Harper.)
NEWTON, WILLIAM EDWARD -	1622	14th June	1866	Construction of breech-loading fire-arms so as to admit of altering guns from muzzle to breech loaders. (Communicated by Philo Remington, Samuel Remington and Eliphalet Remington.)
NEWTON, WILLIAM EDWARD -	1692	25th June	1866	An improved spirit meter. (Communicated by William Murphy.)
NEWTON, WILLIAM EDWARD -	1717	27th June	1866	Apparatus for raising and forcing water and other liquids, applicable to the ejection of bilge water from vessels, the filling of the tanks of locomotive tenders and other purposes. (Communicated by Henry Seagur Lansdell.)
NEWTON, WILLIAM EDWARD -	1835	12th July	1866	Machinery for making covered twist and cord. (Communicated by John Turner and Isaac Emerson Palmer.)
NEWTON, WILLIAM EDWARD -	1921	24th July	1866	Machinery for burnishing or polishing enamelled paper. (Communicated by Edwin Blood.)
NEWTON, WILLIAM EDWARD -	1922	24th July	1866	Improvements in machinery for hulling and finishing rice, which improvements are also applicable to hulling and polishing other grain. (Communicated by Stephen Oscar Ryder.)
NEWTON, WILLIAM EDWARD -	1937	25th July	1866	Improvements in dyeing and hardening dyed woods, and also in preparing wood to be used in the manufacture of the cylinders of carding-engines. (Communicated by Barton Howard Jenks.)
NEW TON, WILLIAM EDWARD -	1988	25th July	1866	Improvements in treating iron for the purpose of converting it into steel or hard metal, and for plating or coating and hardening and tempering iron and steel. (Communicated by Elliot Savage.)
NEWTON, WILLIAM EDWARD -	1985	lst Aug.	1866	An improved method of promoting com- bustion of fuel in steam-boiler furnaces and other furnaces. (Communicated by Clark Fisher.)
NEWTON, WILLIAM EDWARD -	1996	2nd Aug.	1866	Construction of ordnance. (Communicated by John Ericsson.)
NEWTON, WILLIAM EDWARD -	2026	6th Aug.	1866	Manufacture of carbonates and bicarbonates of soda and potash, the soluble and insoluble silicates of soda and potash, and muriatic acid, from chlorides of sodium and potassium. (Communicated by Haydn Mozart Baker, Joseph Henry Poole and William Ralph Stace.)

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Name of Patentee.	Number of Patent.	Date.		Subject-matter of Patent.
NEWTON, WILLIAM EDWARD -	2036	7th Aug.	1866	Chucks for turning lathes and other tools. (Communicated by Isaac Smith and William Harvey Haight.)
NEWTON, WILLIAM EDWARD -	2073	13th Aug.	1866	Breech-loading fire-arms. (Communicated by Alexander James Bergen.)
NEWTON, WILLIAM EDWARD -	2123	18th Aug.	1866	Improved apparatus for saving life and pro- perty in cases of shipwreck. (Communicated by François Frédéric de Clossman.)
NEWTON, WILLIAM EDWARD -	2144	21st Aug.	1866	Machinery for making nails. (Communicated by the Excelsior Nail Company (Incorporated).)
NEWTON, WILLIAM EDWARD -	2145	21st Aug.	1866	Improvements in the mode of and apparatus for the distillation, rectification and disinfection of mineral or vegetable oils, applicable also to the purification and rectification of fatty and other products of such oils. (Communicated by Jean Baptiste Lakore.)
NEWTON, WILLIAM EDWARD -	2172	23rd Aug.	1866	An improved mode of preventing eggs of all kinds from spoiling. (Communicated by Jesse Kersey Marsh.)
NEWTON, WILLIAM EDWARD -	2181	24th Aug.	1866	Improvements in organs, pianofortes and melodeons, which improvements are also applicable to other musical instruments having or employing key-boards. (Communicated by George Byron Kirkham.)
NEWTON, WILLIAM EDWARD -	2187	25th Aug.	1866	Breech-loading fire-arms. (Communicated by Thomas Jefferson Vail.)
NEWTON, WILLIAM EDWARD -	2215	28th Aug.	1866	An improved mode of preventing oxida- tion of lead balls in fixed ammunition. (Communicated by Barton Howard Jenks.)
NEWTON, WILLIAM EDWARD -	2231	29th Aug.	1866	Breech-loading fire-arms. (Communicated by Barton Howard Jenks.)
NEWTON, WILLIAM EDWARD -	2242	30th Aug.	1866	Machinery for hulling and cleaning coffee and other berries or seeds. (Communicated by William Van Vleek Lidgerwood.)
NEWTON, WILLIAM EDWARD -	2247	31st Aug.	1866	Improved apparatus for boring boiler tube heads, drilling angle holes or cutting circular grooves in metallic substances. (Communicated by James Miller.)
NEWTON, WILLIAM EDWARD -	2451	24th Sept.	1866	Machinery or apparatus for filtering liquids. (Communicated by Robert Stewart.)
Newton, William Edward -	2468	25th Sept.	1866	Cornets and other similar musical instru- ments. (Communicated by the Schreiber Cornet Manufacturing Company (Incorporated).)
Newton, William Edward -	2561	4th Oct.	1866	An improved mode of forming collars on metallic axles and other articles. (Communicated by William Allen.)
NEWTON, WILLIAM EDWARD -	2590	8th Oct.	1866	Atmospheric engines. (Communicated by David Dick.)
NEWTON, WILLIAM EDWARD -	2591	8th Oct.	1866	Steam-engines. (Communicated by Alexandre Damas Mayre.)
NEWTON, WILLIAM EDWARD -	2805	30th Oct.	1866	Construction of steam-boilers. (Communicated by Robert Bailey.)

Name of Patentee.	Number of Patent.	Date.		Subject-matter of Patent.
NEWTON, WILLIAM EDWARD -	2824	31st Oct.	1866	An improved vacuum air-engine. (Communicated by John Robertson Cameron.)
NEWTON, WILLIAM EDWARD -	2877	6th Nov.	1866	Poles or rods for curtains and hangings. (Communicated by Jules Antoine Pelosse.
NEWTON, WILLIAM EDWARD -	2904	7th Nov.	1866	An improved mode of and apparatus for cleaning the exterior of houses, public buildings, objects of art, ornamental surfaces, walls, carriages and other articles of things. (Communicated by Charles Nivert and Blaise Dussap.)
NEWTON, WILLIAM EDWARD -	2923	9th Nov.	1866	Pocket knives. (Communicated by William Sausser.)
NEWTON, WILLIAM EDWARD -	2924	9th Nov.	1866	Improvements in treating vegetable substances chiefly applicable to the manufacture of paper pulp and fibres. (Communicated by Benjamin Chew Tilghman.)
NEWTON, WILLIAM EDWARD -	3025	17th Nov.	1866	Machinery for submarine excavations. (Communicated by Cladius Edwar Habicht.)
NEWTON, WILLIAM EDWARD -	3106	26th Nov.	1866	An improved process for extracting oil an paraffine from bituminous substance such as peat or coal. (Communicated by S. Lloyd Wiegand.)
NEWTON, WILLIAM EDWARD -	3159	1st Dec.	1866	Improved machinery for untwisting, opening and carding all kinds of rope and cordage. (Communicated by William Wilson Daves port.)
NEWTON, WILLIAM EDWARD -	8161	1st Dec.	1866	Rolls of spinning, drawing and other machines. (Communicated by Edward Livingston Perry.)
NEWTON, WILLIAM EDWARD -	3253	10th Dec.	1866	Certain improvements in breech-loadin fire-arms, and in cartridges and bulle for the same. (Communicated by Hiram Berdan.)
NEWTON, WILLIAM EDWARD -	8259	11th Dec.	1866	An improved mode of and apparatus for cleaning the outer surfaces of steam boiler tubes. (Communicated by Edouard Victor Juli Joublin.)
Newton, William Edward -	3304	15th Dec.	1866	Improvements in welding steel to malleab iron, and tempering the steel by one and the same operation, and in tempering steel after it has been welded to iron. (Communicated by Asa R. Reynolds.)
NEWTON, WILLIAM EDWARD -	8854	20th Dec.	1866	Effecting the combustion of substances is a pulverulent state. (Communicated by Aimé Victor Olivier.)
NEYRET, JEAN BAPTISTE -	85	4th Jan.	1866	Preparing and treating wood and wood pul for the manufacture of paper. (Patented by William Clark.)
NIBBS, JAMES SYSON	2147	22nd Aug.	1866	Lamps for burning a combination of miner and vegetable spirits.
NIBLETT, EDWARD WILLIAM -	1552	5th June	1866	Improvements in water-closets, urinals, lavitories and other receivers, and also in tag for supplying liquids to the same.

Name of Patentee.	Number of Patent.	Date.	_	Subject-matter of Patent.
Nichol, Bryce Grey	1385	15th May 18	866	Construction of rotary engines to be worked by steam or other power.
Nicholas, James	1600	12th June 18	866	Improvements in retorts and in the mode of working the same, to obtain crude paraffin and other oils from cannel, coal, bituminous matter, wood, peat, bones or other material.
NICHOLLS, HENRY MARTYN -	2808	30th Oct: 18	866	Improvements in apparatus for cutting con- tinuous paper into sheets, and in piling or disposing of the same when cut.
Nicholls, William	2023	6th Aug. 1	866	Couplings or connections particularly adapted for coupling or connecting gas, water and other pipes.
Nichols, David	1770	4th July 18	866	Improved machinery for manufacturing bricks.
NICHOLS, DAVID MEEKER -	2388	17th Sept. 18	866	Certain new and useful improvements in steam jets. (Patented by George Tomlinson Bousfield.)
Nichols, John	2995	15th Nov. 18	866	Machinery for wringing yarns.
Nicholson, Edward Cham- [BERS.	1107	19th April 18	866	Manufacture of blue coloring matters suitable for dyeing and printing.
Nicholson, James	3064	22nd Nov. 18	866	Certain improvements in the manufacture of safes and other similar depositories, and in the construction thereof.
NICHOLSON, JOSEPH ALFRED -	173	19th Jan. 18	866	An improved method of protecting the contact surfaces of vessels, utensils and articles of domestic use and their supports.
Nicolas-Daubisgnye, Didier [Louis.	890	8th Feb. 18	366	Pumps.
Nicolas-Daubisgnye, Didier [Louis.	1110	20th April 18	366	Improvements in bottle stoppers and in the method of fastening the same hermetically. (Communicated by Charles François André Pécaut.)
Nicoli, Charles	1328	9th May 18	366	An improved method of and apparatus for preserving the banks of rivers and water-courses or other embankments from corrosion or wasting. (Patented by William Edward Gedge.)
Nicoli, Charles	2910	8th Nov. 18	866	An improved method of and apparatus for preserving the banks of rivers and water-courses or other embankments from corrosion or wasting. (Patented by William Edward Gedge.)
Nicoll, Benjamin	1858	llth May 18	366	Improvements in the economical construc- tion and ornamentation of buildings.
NICOLL, DONALD	480	15th Feb. 18	366	Improvements in the construction of electric telegraph conductors and in the method of preparing and laying the same, also in the machinery or apparatus to be employed thereiu.
Nicoll, Donald	13 49	10th May 18		Means of and apparatus for preserving animal and vegetable substances from decomposition or decay, and for the conveyance and transport of the same.
Nightingale, Noah	75	10th Jan. 18	366	Certain improvements in machinery or apparatus for cutting, shaving, thinning and grinding skins, hides or pelts, in a tanned, dressed or partly dressed state.

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NILLUS, ISIDORE, the younger	888	5th March 1866	Construction of portable steam-engines. (Patented by George Davies.)
Nimmo, George	3315	17th Dec. 1866	An improvement in the mode of construct ing shovels and spades.
Nisbet, John	1224	1st May 1866	Apparatus for getting or cutting minerals.
Nivert, Charles	2122	18th Aug. 1866	An improved buckle. (Patented by Baldwin Fulford Weather don.)
Nivert, Charles	2904	7th Nov. 1866	An improved mode of and apparatus for cleaning the exterior of houses, public buildings, objects of art, ornamental surfaces, walls, carriages and other articles of things. (Patented by William Edward Newton.)
Noake, Reuben	911	29th March 1866	Certain improvements in the manufactur of iron safes and other strong boxes.
Noble, Andrew	1914	23rd July 1866	Construction of segment shells.
Noble, Orange	606	27th Feb. 1866	An improved process of and apparatus fo distilling petroleum and other liquid sub stances. (Patented by William Edward Newton.)
Noble, Orange	616	28th Feb. 1866	Process of and apparatus for the distillation of tar and other substances. (Patented by William Edward Newton.)
Nöggerath-Temmerman, [Rufina.	2972	13th Nov. 1866	Preparation or treatment of fabrics or materials for the manufacture of various useful articles. (Patented by William Clark.)
Noone, George Edward -	1163	25th April 1866	Machinery and processes for deodorizing and treating sewage and other refuse, and manufacturing therefrom manure and other substances for chemical and other uses.
Norfolk, Richard	1096	19th April 1866	Improvements in reaping-machines, which improvements are also applicable to other agricultural implements in which chain are used for communicating motion.
Norfolk, Richard	3128	28th Nov. 1866	Improvements in reaping-machines and other agricultural implements in which endless delivering chains are or may be employed, and in machinery for making such chains.
Norman, Abraham	709	8th March 1866	Pen and pencil holders or cases.
Norman, John	618	28th Feb. 1866	Apparatus for producing ice.
Norman, John	683	6th March 1866	Improvements in apparatus for reburning and in apparatus for washing anims charcoal or charcoal substitutes.
Norman, John Abraham -	709	8th March 1866	
Normand, Jacques Augustin	838	21st March 1866	Improvements in nautical instruments and other instruments or apparatus of precision, for use at sea. (Patented by Michael Henry.)
Norrie, William Hynd -	. 9	lst Jan. 1866	Improvements in finishing textile fabric and in the machinery or apparatus con nected therewith.
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Name of Pate	antee.			Number of Patent.	Date.		Subject-matter of Patent.
North, Edward	Parso	NS	-	2853	3rd Nov.	1866	A new or improved portable or folding reading desk, stand or easel.
North, Frederic	:K	-	-	1272	4th May	1866	Machinery for preparing wool and othe fibrous materials for combing and spin ning.
NORTHALL, FRANC	CIB	-	-	3375	22nd Dec.	1866	Water tuyeres.
NORTHEND, JOSE	PH	-	-	1708	27th June	1866	Machinery for combing wool and othe fibrous substances.
NORTHROP, JONAT	MAH	-	-	2202	27th Aug.	1866	Apparatus to be used in the fringing and trimming of shawls, mantles and othe fabrics requiring fringes or trimmings.
Norton, Charles	s Dou	GLA	8 -	2916	9th Nov.	1866	A new and improved method of making revolving boot and shoe heels.
Norton, Eugene	LINDS	BEY	-	2585	8th Oct.	1866	Manufacture of leather binding. (Patented by George Haseltine.)
NORTON, JAMES L	EE	-	•	163	17th Jan.	1866	Apparatus for discharging the water result ing from condensed steam from apparatu where steam is employed.
Norton, James L	EE	-	-	1320	8th May	1866	Apparatus to be employed in evaporating volatile and combustible liquids to obtain light or heat therefrom.
Norton, James L	EE	•	-	1855	16th July	1866	Apparatus for discharging the water result ing from condensed steam from apparatu where steam is employed.
Norton, James L	EE	-	-	2352	13th Sept.	1866	Machinery for washing and cleansing woo and other fibrous materials.
Nunn, William	-	-	-	556	23rd Feb.	1866	Ships' binnacle lamps.
Nurse, Cedric	-	-	-	1249	2nd May	1866	Manufacture of harness and saddlery.
Nurse, Cedric	-	-	-	1500	29th May		A new or improved fastening applicable as substitute for buckles.
NUTTALL, JAMES	-	•	-	3167	3rd Dec.	1866	Looms for weaving.
Nye, Samuel	-	-	-	148	16th Jan.	1866	A new method of and apparatus for washing straw and other plaits and other sub stances, and for domestic washing pur poses.

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Ockerby, Featherstone	-	2701	19th Oct.	1866	Improvements for a two-wheeled vehicle commonly called a hansom safety cab.
OELKERS, OSCAR	-	8856	20th Dec.	1866	Breech-loading fire-arms. (Patented by René Louis Martin.)
OETZMANN, JOHN	-	2533	3rd Oct.	1866	Construction of mattresses.
Ogden, John	-	456	13th Feb.	1866	Improved means or apparatus for the extinguishing of fires in steam vessels, mills and other buildings in which steam is used.

Name of Patentoe.	Number of Patent.	Date.	Subject-matter of Patent.
Ogden, John	2741	24th Oct. 1866	Metallic packings for piston rods and other purposes. (Communicated by Ralph Ogden.)
Ogden, Ralph	2741	24th Oct. 1866	Metallic packings for piston rods and other purposes. (Patented by John Ogden.)
OLDFIELD, BENJAMIN	3217	6th Dec. 1866	Looms and shuttles for weaving. (Patented by George Haseltine.)
OLDFIELD, EDWARD	8217	6th Dec. 1866	Looms and shuttles for weaving. (Patented by George Haseltine.)
OLDFIELD, PETER	823	20th March 1866	Machinery for balling wool or other fibrous materials.
OLDHAM, ALEXANDER	2366	14th Sept. 1866	Certain improvements in metallic pistons.
Oldham, William	1098	19th April 1866	Improvements in collecting or condensing and utilizing the fumes given off by furnaces used in the manufacture of copper, and in other metallurgical operations, which improvements may also be applied to the collecting or condensing of fumes from other sources.
Oldroyd, Allen	2046	8th Aug. 1866	Treatment of jute.
OLIVIER, AIMÉ VICTOR	8854	20th Dec. 1866	Effecting the combustion of substances in a pulverulent state. (Patented by William Edward Newton.)
OLIVIER, PIERRE ALCIDE -	1035	11th April 1866	Apparatus for drawing off aërated liquids. (Patented by William Clark.)
OLLEY, WILLIAM	2381	11th Sept. 1866	Apparatus for separating animal and vege- table matters from water and other liquids.
Ommanney, Frederick [Francis.	2954	12th Nov. 1866	Improved self-acting apparatus for cutting or getting coal, boring rocks or other substances, which apparatus is also applicable to steam hammers, mortising machines and other similar purposes.
Openshaw, George	1967	31st July 1866	Shuttles used for weaving.
Opper, Morris	8009	16th Nov. 1866	A new manufacture of ladies' skirts. (Patented by Alfred Vincent Newton.)
ORCHAR, JAMES GUTHRIE -	1680	16th June 1866	Looms for weaving.
ORFORD, CHARLES WYATT -	198		A new or improved force pump and garden engine.
OBFORD, CHARLES WYATT -	3015	17th Nov. 1866	A new or improved portable bath.
Obioli, Zéphirim Gaspard Alexandre Nathan [Petrone.	35	4th Jan. 1866	Preparing and treating wood and wood pulp for the manufacture of paper. (Patented by William Clark.)
Orr, John	281	29th Jan. 1866	Steam-engines.
Овв, Јони	1953	27th July 1866	Improvements in ornamental weaving and in apparatus employed therein.
Osborn, Lewis Alexander -	631	1st March 1866	An improved spike. (Patented by William Robert Lake.)
Osborn, Lewis Alexander -	680	6th March 1866	Machinery for making bolts, rivets, spikes and other similar articles. (Patented by William Robert Lake.)
Osborne, Charles Stanley	813	19th March 1866	A new compound applicable to the lining or covering of bearings, steps, axle boxes, journals and other frictional parts of ma- chinery, also to the construction of pulleys, wheel tyres, screw propellers and other like parts of machinery.

Name of Patentec.	Number of Patent.	Date.	Subject-matter of Patent.
Osselin, Alfred François -	2323	10th Sept. 1866	Manufacture of calcareous bricks or artificial stones. (Patented by William Edward Gedge.)
OTTO, AUGUSTE NICOL	434	12th Feb. 1866	Gas and air engines. (Patented by Charles Denton Abel.)
OTWAY, EDMUND WINDER -	689	2nd March 1866	Chaff cutting machines.
OUTRAM, THOMAS	2607	9th Oct. 1866	Manufacture of cast iron.
Owen, William Lancaster	2185	25th Aug. 1866	Apparatus for working switches and signals of railways.
Owens, John	2246	31st Aug. 1866	Certain improvements in looms for weaving.

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PADDOCK, WILLIAM SHANK-		9th April	1866	Fastenings for trunks, boxes, bags, valises and other like articles. (Patented by William Clark.)
PAGAT, ETIENNE	2103	16th Aug.	1866	Manufacture of the wheels of carriages for conveying coals and other minerals in the working of mines. (Patented by Henri Adrien Bonneville.)
Page, Edward	2081	14th Aug.	1866	Means or apparatus for the manufacture of bricks and tiles.
PAGE, MOSES WEBSTER -	1518	31st May	1866	Improvements in tanning hides and akins, and in currying leather. (Patented by George Tomlinson Bousfield.)
Page, Thomas	2986	14th Nov.	1866	Improvements in locomotive engines and their permanent ways, applicable for steep gradients and Alpine locomotion.
PAGET, FREDERICK ARTHUR -	2334	11th Sept.	1866	Improvements in the connecting parts of machinery and structures liable to impulsive forces.
PALEY, JOHN	2891	7th Nov.	1866	Sheathing vessels.
PALMER, FITZMAURICE	1925	24th July	1866	Improvements in ships or vessels of war, part of which improvements are applicable to other ships or vessels.
PALMER, FITZMAURICE	8204	5th Dec.	1866	Projectiles.
PALMER, HENRY THOMAS -	1906	23rd July	1866	Machinery or apparatus for cleaning and pre- paring cotton or other fibrous substances.
PALMER, ISAAC EMERSON -	1835	12th July	1866	Machinery for making covered twist and cord. (Patented by William Edward Newton.)
Palyart, Victor	2708	19th Oct.	1866	Improved pins, nails or tacks, the applica- tion of the same to certain purposes, and an apparatus to be employed in inserting the same, when fixed to caps or capsules, into corks. (Patented by Clinton Edgcumbe Brooman.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Pape, William Rochester -	1501	29th May 1866	Manufacture and construction of breech- loading and other rifles and guns.
PAPENGOUTH, CHRISTOPHER OSWALD.	87	10th Jan. 1866	Constructing ships and vessels.
PARAF, ALFRED	1174	26th April 1866	Printing and dyeing textile fabrics and yarns.
Paraf, Alfred	1176	26th April 1866	Printing and finishing all materials where ultramarine colors are used.
PARAF, ALFRED	1587	2nd June 1866	Dyeing, printing and other operations based on chemical reactions. (Communicated by Mathias Paraf-Javal.)
Paraf, Alfred	1642	19th June 1866	Fixing coloring matters on textile fabrics, yarns or other materials.
PARAF, ALFRED	1988	31st July 1866	The application to medicine, for beverages, and for industrial purposes, of a new gaseous water. (Communicated by Paul Schutzenberger.)
PARAF, ALFRED	1978	1st Aug. 1866	Deoxidation and precipitation. (Communicated by Mathias Paraf-Javal.)
Paraf, Alfred	2083	14th Aug. 1866	Production of green coloring matters for dyeing and printing textile fabrics and yarns.
Paraf, Alfred	2115	17th Aug. 1866	Use and application of an inorganic glyceric ether.
PARAF, ALPERD	2273	4th Sept. 1866	Extraction of iodine and bromine from kelp.
Paraf-Javai., Eugene	8307	15th Dec. 1866	Preparation and application of certain fatty bodies. (Patented by Clinton Edgcumbe Brooman.)
PARAF-JAVAL, MATHIAS	1537	2nd June 1866	Dyeing, printing and other operations based on chemical reactions. (Patented by Alfred Paraf.)
Paraf-Javal, Mathias	1978	1st Aug. 1866	Deoxidation and precipitation. (Patented by Alfred Paraf.)
PARAF-JAVAL, MATHIA8	8807	15th Dec. 1866	Preparation and application of certain fatty bodies. (Patented by Clinton Edgcumbe Brooman.)
PARAIRE, EDWARD LOUIS -	8190	4th Dec. 1866	Looms for weaving.
PARDOR, CHARLES	919	29th March 1866	Construction of coke ovens.
PARK, ROBERT WALLACE -	2828	lst Nov. 1866	Lamps. (Patented by John Henry Johnson.)
PARKER, CHARLES HODGSON -	836	21st March 1866	Improvements in vices and in the mode of constructing the same.
Parker, James	557	23rd Feb. 1866	Engines and apparatus for obtaining motive- power, and for using the foul air in mines as fuel.
PARKER, JAMES	1666	22nd June 1866	Improvements in motive-power apparatus applicable for propelling vessels, for raising water and for other purposes.
PARKES, ALEXANDRE	1564	6th June 1866	Manufacture of compounds in the nature of kamptulicon.
PARKES, ALEXANDER	1592	11th June 1866	Manufacture of brushes.
PARKES, ALEXANDER	2709	19th Oct. 1866	Improvements in the manufacture of parke- sine or compounds of pyroxylin, and in the production of imitations of ivory and pearl.
Parkes, George	184	20th Jan. 1866	A new or improved apparatus or device for producing theatrical or stage illusions.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PELLETREAU, MALTBY KINGS- [TON.	1569	7th June 1866	Electro-magnetic striking attachments for paper ruling machines. (Patented by John Garrett Tongue.)
PELLEY, NICHOLAS DAVID LE	2104	16th Aug. 1866	Rudders for ships and other water craft. (Patented by William Clark.)
Pelosse, Jules Antoine -	2877	6th Nov. 1866	Poles or rods for curtains and hangings. (Patented by William Edward Newton.)
PENDLEBURY, JOHN TOMLIN- [80N.	508	17th Feb. 1866	Apparatus for shaving and cutting metal bars and metal tubing.
PENDLEBURY, THOMAS	2552	4th Oct. 1866	Improvements in tube and bar cutters, and in apparatus connected therewith.
PENDRY, WILLIAM	924	31st March 1866	Dynamometric apparatus for relieving and indicating the strain on mooring and towing ropes or cables of ships and other vessels and for other similar purposes.
Penn, Henry	1098	19th April 1866	Improvements in collecting or condensing and utilizing the fumes given off by furnaces used in the manufacture of copper and in other metallurgical operations, which improvements may also be applied to the collecting or condensing of fumes from other sources.
PENNEY, CHARLES GREGORY	200	22nd Jan. 1866	Treatment and utilization of certain waste products resulting from the combustion of boghead, cannel and other coals and minerals, and from the treatment of china clay and other analogous substances.
PENOTIÈRE, LA, WILLIAM -	2520	29th Sept. 1866	Certain improvements in fire-arms.
Peneice, Herbert Newton -	58	8th Jan. 1866	Machinery employed in forming tunnels and galleries in rocks.
Pepper, John Henry	3278	13th Dec. 1866	Improved apparatus and automatic figures capable of performing various gymnastic feats.
Pérémé, Pierre François [Léon.	1749	2nd July 1866	Construction of submarine telegraph cables. (Patented by Henri Adrien Bonneville.)
Pérémé, Pierre François [Léon.	1751	2nd July 1866	Construction and laying down of subter- raneous telegraph wires. (Patented by Henri Adrien Bonneville.)
PERKINS, CHARLES HENRY -	2810	30th Oct. 1866	Improvements in treating sheet iron plates for the purpose of preparing the same for being coated with zinc, for producing the so-called "galvanized iron," and also for manufacturing such plates in imitation of Russia iron. (Patented by George Tomlinson Bousfield.)
PERKINS, JOHN WILLIAM -	2271	4th Sept. 1866	Apparatus for the distillation of paraffine and petroleum or other hydrocarbon oils.
Pernod, Jules	3886	24th Dec. 1866	Certain improvements in the manufacture of the extract of madder. (Patented by Hector Auguste Dufrené.)
PERRA, BENOIT :	83	10th Jan. 1866	Improvements in the manufacture and purification of lamp black and in apparatus employed therein. (Patented by Richard Archibald Broomen.)
Perré, Edmund	62	9th Jan. 1866	Certain improvements in the method of obtaining motive-power and in apparatus connected therewith.

Name of Patentee,	Number of Patent.	Date.	Subject-matter of Patent.
Perre, Joseph	1586	11th June 1866	Improved apparatus for decorticating rice and other grain. (Patented by Hector Auguste Dufrené.)
Perrigault, Joseph	1206	28th April 1866	
Perry, Charles	2604	9th Oct. 1866	An improved machine for flattening hackle pins or comb teeth employed in machines for combing wool or other fibrous sub- stances.
PERRY, EDWARD LIVINGSTON	3161	1st Dec. 1866	Rolls of spinning, drawing and other machines. (Patented by William Edward Newton.)
PERRY, GEORGE	2951	12th Nov. 1866	Lockets, brooches and other articles of jewellery.
PERRY, JOHN GOULD	3186	4th Dec. 1866	Improvements in mowing and reaping machines, partly applicable to carriages and other wheeled vehicles. (Patented by George Haseltine.)
PERRY, JOSEPH JOHN	3337	19th Dec. 1866	Inkstands or vessels used for containing and supplying ink.
PERRY, MYRON	8059	21st Nov. 1866	An improved mode of and means for attaching casters to the stands of sewing-machines. (Patented by George Haseltine.)
Perry, Stephen	8078	22nd Nov. 1866	An improved apparatus for tapping beer casks and other like vessels containing liquids under pressure. (Patented by William Robert Lake.)
PERRY, STEPHEN	3337	19th Dec. 1866	Inkstands or vessels used for containing and supplying ink.
Peter, Johann Jacob	1086	J6th April 1866	Breech-loading fire-arms. (Patented by John Ulrich Zimmermann.)
PETIN, HIPPOLYTE ULYSSE -	2874	6th Nov. 1866	Improvements in rolling metals and in the machinery or apparatus employed therein. (Patented by John Henry Johnson.)
PRTITUIDIER, FRANÇOIS -	2719	22nd Oct. 1866	A new or improved method of printing or applying designs in relief and brilliancy to all kinds of fabrics.
Petitjean, Tony	3147	30th Nov. 1866	A new means for procuring the more perfect combustion in the burning of fuel.
PETITO, ERNEST	34 0	3rd Feb. 1866	A certain improvement in envelopes.
PETITPIERRE, HENRY	1941	26th July 1866	Steam-generators. (Patented by Henri Adrien Bonneville.)
Petrie, John, jun'	577	24th Feb. 1866	Machines for washing wool and other fibrous materials.
PETRY-CHAUDOIR, EUGÈNE -	582	21st Feb. 1866	Construction of tubular boilers. (Patented by Henri Adrien Bonneville.)
PETTY, HENRY JAMES	2089	15th Aug. 1866	An improved and simple method for the working of perpendicular sliding sashes, doors and shutters, or any other perpendicular sliding fittings, by the aid of spring rollers, and the construction of the self-securing moveable beads to admit of such sliding sashes, doors and shutters, or other perpendicular sliding fittings being taken out for the purpose of cleaning or otherwise.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PETTY, ROBERT	854	22nd March 1866	An improvement in the manufacture of ropes.
PRUGROT, EMILE	1048	13th April 1866	Mills for crushing, grinding and other purposes. (Patented by William Clark.)
Peugeor, Jules	1048	13th April 1866	Mills for crushing, grinding and other purposes. (Patented by William Clark.)
PEVERETT, WILLIAM	55	8th Jan. 1866	Improved machinery for assorting grain and seeds.
PRYTON, EDWARD	1671	22nd June 1866	Safes.
PEYTON, EDWARD	2615	9th Oct. 1866	Manufacture of printing rollers or cylinders.
PFLAUM, JOHN FREDERICK [Augustus.	211	22nd Jan. 1866	Travelling cranes.
PHAIL, HUGH MC	630	1st March 1866	Improvements in raising or lifting and forcing water and other liquids, and in the apparatus or mechanism employed therefor.
Pherson, John Mc	2367	14th Sept. 1866	Winding apparatus.
PHILLIPS	566	23rd Feb. 1866	Arranging and working steam-engine valves. (Patented by Peter Kerr.)
PHILLIPS, EDMUND	2350	13th Sept. 1866	Certain improvements in machinery or apparatus to be employed in cutting textile fabrics.
Phillips, George	782	10th March 1866	Preparing purple and blue colouring matters.
PHILLIPS, GEORGE RICHARD -	1584	9th June 1866	Valves for regulating feed, suction and other purposes.
PHILLIPS, HENRY	2756	25th Oct. 1866	Improvements in the preparation of deodo- rizing materials and in the manufacture of gas.
PHILLIPS, JAMES EDWIN -	1377	15th May 1866	Axles for railway and other carriages.
PHILLIPS, JAMES EDWIN -	2528	29th Sept. 1866	Reaping and mowing machines.
PHILLIPS, JOHN MORRIS -	1808	10th July 1866	Arranging and working steam-engine valves. (Patented by Stewart Clark.)
PHILLIPS, LODNER DARRE- [VONTIS.	244	24th Jan. 1866	A machine for making buttons from plastic materials, grinding, polishing and carding the same, parts of which can be used in grinding, polishing and carding other kinds of buttons.
PHILLIPS, WILLIAM HENRY -	982	5th April 1866	
PHILLIPS-SMITH, JOHN	1957	28th July 1866	Improvements in traction engines, parts of which improvements are also applicable to locomotive engines and wheeled carriages.
Phillipson, William Francis	s 2860	3rd Nov. 1866	Manufacture of bedsteads.
l'HIPPS, GEORGE HENRY -	3219	6th Dec. 1866	Means employed for propelling, steering and manœuvering vessels, ships, boats and other navigable bodies.
PICHLER, SERAPHICUS FRANCI	s 3278	13th Dec. 1866	Improved apparatus and automatic figures capable of performing various gymnastic feats.
Pichoin, Crlestin	1470	26th May 1866	Gas pyrometers which may also be employed as thermometers. (Patented by Baldwin Fulford Weatherdon.)
Pichoin, Celestin	2068	11th Aug. 1866	Thermometers and pyrometers. (Patented by Baldwin Fulford Weatherdon.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Pick, Ignac	2232	29th Aug. 1866	Articles consisting of muffs combined with bags, pockets or similar receptacles.
Pickering, Jonathan	1962	30th July 1866	Hot blast for smelting and other furnaces.
Pickin, Joseph	587	26th Feb. 1866	An improved method of and apparatus for signalling and giving alarm on railways.
Pickup, William	2884	7th Nov. 1866	
PIDAULT, MARTIAL	2946	10th Nov. 1866	Breech-loading fire-arms and cartridges. (Patented by William Clark.)
Pidding, William	2624	11th Oct. 1866	T
PIDDING, WILLIAM	2950	12th Nov. 1866	Improvements in the manufacture of bricks and in the application or uses of the same.
Pidding, William	313 1	28th Nov. 1866	An improved method or methods of treating coffee and tea for general uses.
Piddington, John	246	25th Jan. 1866	Manufacture of boots and shoes. (Communicated by George Barnes Windle.)
Piedallu, Jean François -	3114	26th Nov. 1866	Manufacture or preparation of leather and other materials. (Patented by William Clark.)
PIERCE, DENISON CHAUNCEY	2565	4th Oct. 1866	112020101
PIERCE, WILLIAM	2201	27th Aug. 1866	Certain improvements in the method of purifying gas, whereby its illuminating properties are improved, and in the apparatus connected therewith.
Piers, Sir Eustace Fitz- [maurice.	2747	24th Oct. 1866	The state of the s
PIGGOTT, WILLIAM PETER -	1209	28th April 1866	Preventing corrosion and fouling of iron ships.
Pilbrow, James	431	12th Feb. 1866	An improved method of applying to land liquid sewage, and also of applying to land water, pure or mixed with other matter.
PILCHER, WILLIAM WOOD	3150	30th Nov. 1866	Ī
PILKINGTON, LAWRENCE SEF-	1781	29th June 1866	
PILLINER, RICHARD BURGESS	470	14th Feb. 1866	Machinery for packing and pressing black lead and other materials.
Pilling, Altham	788	16th March 1866	
Pilling, James	19	3rd Jan. 1866	Machinery or apparatus for preparing and spinning cotton and other fibrous materials.
Pimm, George	2291	6th Sept. 1866	Ovens for baking.

	Number	<u> </u>		
Name of Patentee.	of Patent.	Date.		Subject-matter of Patent.
Pinches, John	423	10th Feb.	1966	Stamping or embossing presses used for embossing, coining or stamping of devices of any kind on metal, parchment, paper or fabrics of any kind.
Pingree, Samuel White -	617	28th Feb.	1866	An improved process of and apparatus fo extracting tan, bark and other vegetable materials. (Patented by William Edward Newton.)
Piper, Joseph	1902	21st July	1866	Manufacture of tin and terne plates.
Piret, Frédéric Marie -	1395	16th May	1866	Furnaces and other fire-places. (Patented by William Clark.)
Pitt, George	2613	9th Oct.	1866	Improvements in uniting and securing to gether or ornamenting certain parts of metal bedsteads and other furniture in metal, and also in the formation of screens grilles and metal railing.
PLACET, PAUL EMILE	493	16th Feb.	1866	An improved method of printing.
PLANT, GEORGE	1868	18th July	1866	Improvements in the means and apparatusemployed in the manufacture of taper of conical and other forms of wrought iron and steel tubes, and in forming flanches thereon.
PLANTROU, CHARLES NICOLAS	1988	2nd Aug.		Machinery for carding, combing and clean- ing cotton and other fibrous substances.
PLATT, ANSON HENRY	118	13th Jan.	1866	Lamps. (Patented by William Robert Lake
Platt, Anson Henry	114	13th Jan.	1866	The use and application of paper printed or otherwise ornamented with water colours, for covering floors and other analogous purposes, as a substitute for carpete and oilcloths, and of an improved coating or varnish to be applied to the same to protect its surface from injury and wear. (Patented by William Robert Lake.)
PLATT, SAMUEL RADCLIFFE -	2131	20th Aug.	1866	Improvements in slubbing and roving frames, a modification of which is applicable to winding and throstle frames.
PLAYER, JACOB HORT	860	5th March	1866	An improvement or improvements in the manufacture of phosphorus.
Player, John	1137	21st April	1866	Hot blast stoves or apparatus for heating blast for smelting iron.
Player, John	2857	3rd Nov.	1866	Lining or "fettling" for puddling furnaces and containing vessels in which pig or crude iron is converted into wrough iron or steel.
PLIMBOLL, HENRY DAVIDSON	1150	23rd April	1866	Application of materials to surfaces for or namental purposes.
PLIMSOLL, HENRY DAVIDSON	1721	28th June	1866	The application of a new material to the purpose of rendering gunpowder non explosive.
PLIMSOLL, HENRY DAVIDSON	2745	24th Oct.	1866	Extracting metals from titaniferous iron sand or minerals containing metals.
Plimsoll, Samuel	2193	25th Aug.		Means and apparatus for facilitating and per fecting the unloading of coals and othe goods from railway waggons.
PLUM, THOMAS WILLIAM -	8140	29th Nov.		Syphons for drawing off beer, wine and other liquids, from casks and other vessels.
PLUM, THOMAS WILLIAM -	3440	31st Dec.	1866	Apparatus for taking off liquids from cask and other vessels and similar purposes.

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Name of Patentoe.	Number of Patent.	Date.	Subject-matter of Patent.
Plumerel, Charles Victor	1081	14th April 1866	Apparatus for removing exploded cartridges from breech loading fire-arms. (Patented by Henry Adrien Bonneville.)
Pocheron, Antoine	1297	7th May 1866	Manufacture of glass.
Pocock, Ebenezer	2847	12th Sept. 1866	Machinery for cutting rags, ropes and other articles for paper-making and other purposes.
Pocock, George Pearce -	3447	31st Dec. 1866	Breech loading fire-arms.
Pocock, William Willmer -	274	27th Jan. 1866	.Gas meters.
Pohlmann, Guilliamimus -	1407	18th May 1866	An improved method of and apparatus for preparing and fluting picture and other frames and mouldings. (Patented by Richard Gesell and Alfred Lea.)
Poirrier, Alcide	1912	23rd July 1866	Improvements in the manufacture of certain alkaloids derived from aniline and its homologues. and in their transformation into coloring matters suitable for dyeing and printing. (Patented by George Tomlinson Bousfield.)
Poirrier, Alcide	2669	16th Oct. 1866	Manufacture of green and blue coloring matters. (Patented by George Tomlinson Bousfield.)
Poitevin, Eloi	3224	6th Dec. 1866	Electro-magnetic apparatus for obtaining motive-power. (Patented by William Clark.)
Poll, Moritz	1414	18th May 1866	Machines for cutting and harvesting grain and grass crops. (Patented by William Bünger.)
Pollack, Maurice	2835	1st Nov. 1866	Improvements in packing needles, and in papering needles or making up needles for sale.
Pollard, John	2644	12th Oct. 1866	Machinery for combing wool and other fibrous substances.
Pollit, Joseph	650	3rd March 1866	Improved means or apparatus for drying steam, also for heating the feed water of stationary boilers.
Pollock, Julius Frederick [Moore.	2195	25th Aug. 1866	Machinery or apparatus for pressing bricks, tiles, corbels or other plastic work.
Polsey, Arlon Man	3328	18th Dec. 1866	Improvements in nails and in machinery for manufacturing the same. (Patented by William Robert Lake.)
PONTIFEX, EDMUND ALFRED -	1508	30th May 1866	Refrigerators.
PONTIFEX, SYDNEY RUPERT [F.C.S.	934	2nd April 1866	Methods of solidifying the juice or sap of the bullet tree, otherwise known as balata juice, and the juices or saps of trees yield- ing similar or analogous elastic products. (Patented by Edward Primerose Howard Vaughan.)
Pool, John	1975	1st Aug. 1866	Improvements in manufacturing metallic hoops for casks or other wooden vessels or utensils, and in machinery therefor.
Poole, Joseph Henry	2026	6th Aug. 1866	Manufacture of carbonates and bica-bonates of soda and potash, the soluble and insoluble silicates of soda and potash and muriatic acid, from chlorides of sodium and potassium. (Patented by William Edward Newton.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Poole, Samuel	1023	10th April 1866	Collecting the heated gases from blast furnaces so as to utilise the same.
Pope, Robert Band	1369	14th May 1866	Governing apparatus applicable for regula- ting the speed of all kinds of machinery, the motive force acting on which can be altered by adjusting a valve or sluice.
Poppenburg, Johann Von]der.	2580	6th Oct. 1866	Improvements in breech loading fire-arms, and in cartridges for breech loading fire-arms.
Poppenburg, Johann Von [DER.	3382	·22nd Dec. 1866	Breech loading fire-arms.
PORTER, CHARLES TALBOT -	2199	25th Aug. 1866	Steam-engines. (Partly communicated by John Franklin Allen.)
Porter, Richard, jun ^r	2844	2nd Nov. 1866	Manufacture of gloves. (Communicated by Edouard Vidil.)
PORTER, WILLIAM	1475	26th May 1866	Machinery used in raising and forcing water and other fluids.
Post, Jared Wilson	1258	3rd May 1866	Scrapers for cleaning gun-barrels and other tubes. (Communicated by Ephraim Lauriston Pratt.)
Postweiler, Achille	1418	18th May 1866	Doors to landau and other carriages similar thereto.
Potter, Robert	3083	23rd Nov. 1866	Process of cleansing, purifying and bleaching various kinds of grain.
Potter, Samuel L	2735	23rd Oct. 1866	Manufacture of rails for railways. (Patented by Alfred Vincent Newton.)
Poupard, William	1682	23rd June 1866	Apparatus for screening coals and other materials.
Powell, Charles	622	1st March 1866	Watches and other time keepers.
Powell, William	2287	6th Sept. 1866	Gun and pistol locks.
Powers, Timothy James -	2739	23rd Oct. 1866	Improvements in cartridges and in machinery for manufacturing the same. (Patented by William Robert Lake.)
Poyser, Josiah Thomas -	2177	24th Aug. 1866	Improvements in machinery or apparatus employed in dressing, screening and sepa- rating grain, and for other similar pur- poses.
Pratt, Caleb	2011	4th Aug. 1866	Motive-power engines.
PRATT, EPHRAIM LAURISTON -	1258	3rd May 1866	Scrapers for cleaning gun-barrels and other tubes. (Patented by Jared Wilson Post and William McIntyre Cranston.)
Pratt, John	3163	1st Dec. 1866	An improved pterotype or machine for writing with type.
Pratt, Josiah	2011	4th Aug. 1866	Motive-power engines.
PRENTICE, EUSTACE CAREY -	953	3rd April 1866	Preparing and treating gun-cotton.
PRENTICE, GEORGE	646	3rd March 1866	Improvements in the annealing of metallic plates, and in the apparatus or means em- ployed therefor.
Preston, Francis	154	17th Jan. 1866	Machinery and apparatus used in the manufacture of steel and iron.
PRETTY, HENRY COOPER -	251	25th Jan. 1866	Improvements in finishing the soles and heels of boots and shoes, and in apparatus employed for such purposes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PRICE, ASTLEY PASTON -	- 1365	12th May 1866	Improvements in the means of effecting the combustion of fuel, and in apparatus employed therein. (Communicated by Jaköb Bührer and Carl Hamel.)
PRICE, ASTLEY PASTON -	- 1611	13th June 1866	Improvements in the apparatus for and in the method of effecting the combustion of fuel. (Communicated by Jaköb Bührer and Carl Hamel.)
PRICE, ASTLEY PASTON -	- 8080	19th Nov. 1866	Manufacture of carbonate of soda. (Communicated by Dr. Alfred Blügel.)
Price, Cyrus	- 1390	16th May 1866	Safes, strong rooms, iron doors and their locks.
PRICE, EDWARD	- 370	7th Feb. 1866	Barrows, carts, trucks or other vehicles.
PRICE, ELIHU	- 1890	16th May 1866	Safes, strong rooms, irons doors and their locks.
PRICE, GEORGE	- 694	7th March 1866	Construction of wrought-iron safes.
PRICE, STROTHER	- 2511	28th Sept. 1866	Apparatus for lifting or assisting to lift, and for securing window sashes, shutters and other like frames and weights.
PRIDEAUX, THOMAS -	- 5	lst Jan. 1866	Furnaces.
Prideaux, Thomas -	218	23rd Jan. 1866	An improved mode of heating water for the supply of boilers and for other purposes.
Prideaux, Thomas -	- 700	8th March 1866	Puddling and converting furnaces.
PRIDEAUX, THOMAS -	- 1111	20th April 1866	Improvements in fire-places, whereby the fuel used in such fire-places will be more readily ignited, and a more complete combustion of such fuel effected.
PRINCE, ALEXANDER -	- 124	13th Jan. 1866	Means of preserving timber from decay. (Communicated by George Palmer Ball.)
Prince, Alexander -	- 1232	1st May 1866	Improvements in reverberatory, blast and other furnaces for smelting ores, and in the means of extracting the precious metals therefrom.
Prince, Alexander -	- 1403	17th May 1866	Means of treating scoria or slag of copper ores, iron pyrites, or scoria from other ores containing iron, and of reducing titanic iron ore for the purpose of extracting the iron therefrom.
Prince, Alexander -	- 1846	13th July 1866	Means of preserving timber from decay. (Communicated by George Palmer Ball.)
PRINCE, HENRY	- 1927	25th July 1866	Motive-power engines.
PRIOR, WILLIAM HENRY	- 584	24th Feb. 1866	Machinery or apparatus applicable as a fire- escape, scaffold, lift, or other such like useful purpose.
PRIOUX, ETIENNE THÉOPHILI	2840	12th Sept. 1866	An improved indicator or register. (Patented by William Edward Gedge.)
PROCTOR, JAMES	- 2208	28th Aug. 1866	Chimney pots or terminals.
PROSSER, WILLIAM -	- 1350	11th May 1866	Apparatus for treating metals, metallic ores and other mineral substances.
PROTARD, PIERRE ARMAND .	- 1973	31st July 1866	An improved fastening intended to replace the ordinary screws and nuts in bedsteads and articles of furniture generally. (Patented by William Edward Gedge.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Prouvost, Amedée -	- 1283	5th May 186	Machinery for combing wool and other fibres. (Patented by Clinton Edgcumbe Broomen.)
Prouvost, Amédée -	- 2228	29th Aug. 186	1 `
Prouvost, Amédée -	- 2746	24th Oct. 186	6 Machinery for combing wool and other fibres. (Patented by Clinton Edgcumbe Broomen.)
PRYSE, CHARLES	- 1367	12th May 186	6 Breech-loading fire-arms.
Puckering, Robert -	- 1089	18th April 186	6 Four wheeled vehicles for common roads.
PULVERMACHER, ISAC LOUIS	- 582	24th Feb. 186	6 Means and apparatus for producing and applying galvanic currents.
Pumphrey, Josiah -	- 1145	23rd April 186	An improved portable irrigator for watering gardens and other purposes.
Punshon, John	- 1512	31st May 186	An improved signal bell for registering on a dial plate all signals given by hammer blows or knocks, from the pit bottom to the engine man or winder at the pit top or from any other place to another where signals are or may be adapted for trans- mission by blows.
Purcell, Joseph	- 1416	18th May 186	6 A new or improved machine for breaking or crushing ice, applicable to other purposes.
Purdey, James	- 1464	25th May 186	An improvement in breech-loading fire arms.
Purkis, Robert	- 832	2nd Feb. 186	Manufacture of paper by the employment of a fibre not hitherto used in this manufacture.
PUTNAM, HENRY WILLIAM	- 1528	1st June 186	A new or improved portable mangle. (Patented by John Clyne.)
Pyle, James	- 302	31st Jan. 186	6 Apparatus for cooling worts or other liquids.

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QUADLING, EDWIN PARKE	1781	5th July 1866	Locomotive engines and tenders. (Patented by Robert Fowler.)
Quelle, Brothers	3148	30th Nov. 1866	Muffs. (Patented by Eugene Ehrenfried Quelle.)
Qualle, Eugene Ehrenfried	3148	30th Nov. 1866	Muffs. (Communicated by Messrs. Quelle Brothers.)
Quétineau, Léandre Paul -	892	27th March 1866	A combined arm chair and travelling bag. (Patented by William Edward Gedge.)
QUEULAIN, EMILE	1042	12th April 1866	Apparatus for spooling and copping threads or yarns. (Patented by William Clark.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
QUINN, EMMETT	1487	28th May 1866	Improved apparatus for supplying steam boilers with water. (Patented by George Davies.)
Quinn, Emmett	1675	23rd June 1866	An improved steam gauge. (Patented by George Davies.)

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Radisson, St. Cyr	1704	26th June 1866	Printing on woven fabrics.
Railton, Peter John	2324	10th Sept. 1866	Improved machinery for twisting into bands, cotton, linen, woollen, silk, hemp, or wire.
Ramage, James	887	· 26th March 1866	Production of blocks and plates for printing.
Ramage, John	3231	7th Dec. 1866	Improvements in the manufacture of yarns used for weaving textile fabrics, and in the machinery or apparatus employed therefor.
RAMANN, WILHELM	2798	30th Oct. 1866	Improvements in the treatment and preservation of grain, pulse, seeds and flour or meal, and in the apparatus or means employed therein. (Patented by John Henry Johnson.)
RAMMELL, THOMAS WEBSTER	1844	13th July 1866	Improvements in pneumatic railways and in carriages used therein.
Ramon-y-Garcia Leocadio -	1518	31st May 1866	Apparatus for recording the distance travelled by vehicles and the time occupied therein. (Patented by William Clark.)
Ramsbottom, John	819	20th March 1866	Means of and apparatus for obtaining motive-power from the compression and expansion of vapors.
Ramsbottom, John	1909	23rd July 1866	Improvements in the method of using and treating steam for purposes of obtaining motive-power, and in apparatus connected therewith.
Ramsbottom, John	8158	1st Dec. 1866	Improvements in compound steam-engines, and in the construction and arrangement of steam generating furnaces.
Ramsbottom, Joseph Ormrod	1126	21st April 1866	Certain improvements in machinery or apparatus for stiffening, drying, stretch- ing and finishing cotton and silk woven fabrics.
Ramsden, John Carter -	1425	19th May 1866	Manufacture of reeds for weaving and other purposes.
RAMSDEN, JOHN CARTER -	2444	22nd Sept. 1866	Reeds or combs for weaving or other purposes.
RAMSTEN, CARL HENRICK -	1247	2nd May 1866	Apparatus used when lowering and releasing ships' boats.
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	Number		
Name of Patentee.	of Patent.	Date.	Subject-matter of Patent.
Randall, Henry	256	26th Jan. 1866	Construction of steam vessels. (Patented by John Henry Johnson.)
Randle, George	693	7th March 1866	Improvements in apparatus for conveying tidings of the loss or distress of vessels at sea, also applicable for conveying lines on shore from stranded vessels.
RANDOLPH, CHARLES	3295	15th Dec. 1866	Apparatus for propelling vessels.
Rankin, Henry	848	22nd March 1866	Improved machinery for the manufacture of bags and envelopes made of paper or other fibrous materials, or woven or textile fabrics, either separately or combined.
RANSOME, FREDERICK	458	13th Feb. 1866	Manufacture of building blocks of artificial stone.
Raper, James	303	31st Jan. 1866	Certain improvements in looms for weaving.
Raper, James	8254	11th Dec. 1866	Looms for weaving.
Rapier, Richard Chris- [Topher.	2838	lst Nov. 1866	Apparatus relating to railway switches, signals and stop blocks.
RASTOUIN, VINCENT	359	6th Feb. 1866	Motive-power.
RATHEN, ANTHONY BERNHARD [BARON VON.	1899	21st July 1866	A new or improved mode of constructing a motive-power wheel, whereby to obtain permanent motion, by the application of compressed air or any other elastic fluid.
RATHEN, ANTHONY BERNHARD [BARON VON.	2377	15th Sept. 1866	A new or improved compressed air engine, combined with a new mode and appro- priate construction of the engine for pre- venting the escape of air.
Rauchfuss, Charles [Frederic.	48	6th Jan. 1866	Locks. (Patented by Fredérick Tolhausen.)
Raux, Félix	3371	21st Dec. 1866	Apparatus for producing a draught in fur- naces and for purifying the smoke there- from. (Patented by William Clark.)
Ravelli, Candido	658	3rd March 1866	An improved apparatus for saving life at sea, also adapted for use on all occasions to keep persons affoat in water.
RAWLE, HENRY	608	27th Feb. 1866	An improved process of and apparatus for distilling petroleum and other liquid substances. (Patented by William Edward Newton.)
RAWLE, HENRY	616	28th Feb. 1866	Process of and apparatus for the distillation of tar and other substances. (Patented by William Edward Newton.)
RAWLINGS, WILLIAM	1013	9th April 1866	Fastenings for purses, pocket-books, bags, cigar-cases, boxes and similar receptacles.
RAWSTHORNE, JAMES	889	27th March 1866	Carts for distributing water, liquid manure and other fluids, over roads and lands.
READ, WILLIAM	981	31st March 1866	Electro-magnetic power engines. (Communicated by William Henry Read.)
READ, WILLIAM HENRY -	931	31st March 1866	Electro-magnetic power engines. (Patented by William Read.)
READE, WILLIAM	1829	12th July 1866	Steam pumps. (Communicated by Henry S. Lansdell.)
READE, WILLIAM	1831	12th July 1866	Improved means of and apparatus for supplying water to the tanks of locomotive engines and tenders. (Communicated by Henry S. Lansdell.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Reader, Thomas Joseph -	787	16th March 1866	Force pumps.
READING, FREDERICK FRANCIS	1690	25th June 1866	Certain improvements in fastenings for articles of dress.
READING, GEORGE EDWARD -	1690	25th June 1866	Certain improvements in fastenings for articles of dress.
Reading, John	1690	25th June 1866	Certain improvements in fastenings for articles of dress.
READING, SAMUEL ALFRED -	1690	25th June 1866	Certain improvements in fastenings for articles of dress.
REBIÈRE, FRANÇOIS	969	5th April 1866	Bobbin net or lace machinery.
REBUSCHINSKY, PAUL	1199	28th April 1866	Certain improvements in looms for weaving.
		· •	(Patented by John Lacey Davies.)
REDDALL, FREDERICK	91	11th Jan. 1866	Construction, arrangement and application of retorts and settings in combination with machinery or apparatus for the manufacture of coal or other gases.
REDMAN, RICHARD	1367	12th May 1866	Breech-loading fire-arms.
REDMAN, WILLIAM	2529	2nd Oct. 1866	Machinery or apparatus for spinning cotton, silk and other fibrous substances.
REED, WILLOUGHBY HAHN -	2780	27th Oct. 1866	An improved rivetting press for securing buttons to fabrics. (Patented by George Davies.)
Reess, Jacob	1223	lst May 1866	Means and apparatus for reducing metallic oxides. (Patented by Charles Denton Abel.)
REEVES, CHARLES	2272	4th Sept. 1866	Cartridge case extractors for breech-loading fire-arms.
REEVES, FREDERIC WILLIAM -	3293	15th Dec. 1866	An improved explosive substance.
REILLEY, JOHN OLIVER -	3058	21st Nov. 1866	Improved machinery for manufacturing spikes and rivets. (Patented by Alfred Vincent Newton.)
REIM, WILHELM OSCOR -	2041	8th Aug. 1866	Double hydrostatic scales for determining the load of ships or boats. (Patented by William Clark.)
Reimann, Joseph	1828	8th May 1866	Sewing-machines. (Patented by Michael Henry.)
REINFELD, CHARLES DYONISE	65	9th Jan. 1866	A new or improved detergent to be used in the washing or cleansing of wool. (Patented by John Henry Johnson.)
REMINGTON, ELIPHALET -	1622	14th June 1866	Construction of breech-loading fire-arms so as to admit of altering guns from muzzle to breech loaders. (Patented by William Edward Newton.)
REMINGTON, PHILO	1622	14th June 1866	Construction of breech-loading fire-arms so as to admit of altering guns from muzzle to breech loaders. (Patented by William Edward Newton.)
REMINGTON, SAMUEL	1622	14th June 1866	Construction of breech-loading fire-arms so as to admit of altering guns from muzzle to breech loaders. (Patented by William Edward Newton.)
Rémond, Amédée, François -	1017	9th April 1866	Improvements in the process of de-sulphuration, and in the apparatus employed for such purpose. (Patented by George Davies.)
RÉMOND, PAUL	1917	24th July 1866	Manufacture of sulphate of soda and sulphate of potash. (Patented by George Davies.)

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Name of Patentoe.	Number of Patent.	Date.	Subject-matter of Patent.	
Renault, François Antoine	1185	27th April 1866	The application of improved apparatus thinting looms.	0
RENDEL, GEORGE WIGHTWICK	2061	10th Aug. 1866	Manufacture of coiled iron tubes or cylinder used in the construction of cannon.	3
RENNER, HENRI EDOUARD -	1014	9th April 1866	Apparatus for the treatment of certain fatty and oily substances in order to obtain products therefrom. (Patented by John Henry Johnson.)	
Renney, William	353	5tb Feb. 1866	Improved means of and apparatus for pre- venting oscillation and vibration of the card in iron ships' and other ships' com- passes, by means of friction.	e
RENNIE, THOMAS WILSON -	877	24th March 1866	Arranging or combining the wheels and trams or ways for carriages on common roads.	
Renshaw, Arthur Dallison	1645	19th June 1866	Improvements in apparatus and in the appli- cation thereof for the shearing of sheep and other animals.	
REST, WILHELMUS	1013	9th April 1866	Fastenings for purses, pocket-books, bags, cigar-cases, boxes and similar receptacles.	
RESTELL, THOMAS	722	9th March 1866	Improvements in breech-loading fire-arms, and in cartridges to be used therewith.	•
RESTELL, THOMAS	2711	19th Oct. 1866	Improvements in breech-loading fire-arms, and in cartridges to be used therewith.	·
REUTER, THEODOR	913	29th March 1866	Construction of bridges, arches and roofs.	1
Revol, PIERRE ERNEST [ANTOINE.	2394	18th Sept. 1866	Machinery or apparatus for separating grain from straw. (Patented by William Edward Gedge.)	1
REYNOLDS, ASA R	3304	15th Dec. 1866	Improvements in welding steel to malleable iron, and tempering the steel by one and the same operation, and in tempering steel after it has been welded to iron. (Patented by William Edward Newton.)	l
Rhodes, Joseph	8978	22nd Dec. 1866	Rag grinding machines. (Communicated by Joseph Maison.)	
Rhodes, Josiah	3378	22nd Dec. 1866	Rag grinding machines. (Communicated by Joseph Maison.)	
RHODES, WILLIAM HENRY -	815	20th March 1866	Machinery for spinning and doubling. (Patented by Henry Bernoulli Barlow.)	
RHODES, WILLIAM SUNDER-	8878	22nd Dec. 1866	Rag grinding machines. (Communicated by Joseph Maison.)	1
Rice, George	508	17th Feb. 1866	Mechanism for converting rotary motion into reciprocating motion.	
Rich, John	3329	18th Dec. 1866	Machinery for spinning yarn. (Patented by Alfred Vincent Newton.)	
Richards, John	2781	23rd Oct. 1866	Manufacture of certain parts of brooches and other similar dress fastenings and ornaments.	
RICHARDS, JOHN STEVENS -	808	27th Feb. 1866	An improved process of and apparatus for distilling petroleum and other liquid substances. (Patented by William Edward Newton.)	
RICHARDS, JOHN STEVENS -	616	28th Feb. 1866	Process of and apparatus for the distillation of tar and other substances. (Patented by William Edward Newton.)	
RICHARDS, JOSEPH	2226	29th Aug. 1866	An improved carriage axle for common roads, as also the clip for uniting the spring or springs to the same.	

	Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Ric	CHARDS, SAMUEL -	974	5th April 1866	Machinery for boring rocks. (Partly communicated by Fritz Abegg.)
Ri	CHARDS, WESTLEY -	- 688	6th March 1866	Breech-loading fire-arms and cartridges.
Ri	CHARDS, WESTLEY -	- 1980	28th July 1866	Breech-loading fire-arms.
Ri	CHARDS, WESTLEY -	- 3243	8th Dec. 1866	Fire-arms and cartridges.
Ri	CHARDS, WILLIAM -	- 372	7th Feb. 1866	Means or apparatus for measuring liquids.
Ri	CHARDS, WILLIAM ANTIL	- 3229	7th Dec. 1866	An improved receptacle for tobacco.
Ri	chardson, Benjamin Wai	540	21st Feb. 1866	Means of and apparatus for refrigerating or freezing liquids and for producing ice.
Ri	CHARDSON, CHARLES -	- 1087	16th April 1866	Looms for weaving.
Ri	CHARDSON, CHARLES -	- 2186	25th Aug. 1866	Looms for weaving.
Ri	CHARDSON, CHARLES JAME	8 731	10th March 1866	Arranging steam-boiler and other furnaces in order to render them more suitable for
Ri	CHARDSON, JAMES -	- 886	26th March 1866	burning petroleum and like oils. Breaks or mechanism for retarding and
R.	chardson, John -	- 1863	17th July 1866	stopping railway and other carriages. An improvement in the manufacture of hats.
	CHARDSON, JOHN THOMA	1994	2nd Aug. 1866	An improvement in moulding or pressing
R.	CHARDSON, ROBERT -	- 2428	21st Sept. 1866	glass. Water supply.
1	chardson, Thomas -	- 812	19th March 1866	
101	CHARDSON, THOMAS		13th March 1866	Improvements in treating the waste liquors resulting from the preparation of esparto grass, alfa, straw and other fibrous substances, and in purifying the alkalirecovered therefrom, and in furnaces or evaporating pans connected therewith.
Rı	CHARDSON, WILLIAM HAD	8189	4th Dec. 1866	Certain improvements in the manufacture of iron and in the means employed for effecting the same.
R	chardson, William Hen	812	19th March 1866	Improvements in treating the waste liquors resulting from the preparation of esparto grass, alfa, straw and other fibrous substances, and in purifying the alkali recovered therefrom, and in furnaces or evaporating pans connected therewith.
Rı	CHES, RICHARD ROBERT	- 1213	30th April 1866	Feeding apparatus applicable to mills and machines for grinding, kibbling or crushing grain and other substances.
R	iches, Richard Robert	- 2358	14th Sept. 1866	Horse hay rakes. (Partly communicated by Daniel G. Adelsberger.)
R	chmond, James	- 572	24th Feb. 1866	Improvements in the manufacture of healds and reeds or combs, and in the machinery employed therein.
R	chmond, Thomas -	- 52	8th Jan. 1866	Certain improvements in looms for weaving.
R	chmond, Thomas -	- 59	9th Jan. 1866	Looms for weaving.
R	chmond, Thomas -	- 572	24th Feb. 1866	Improvements in the manufacture of healds and reeds or combs, and in the machinery employed therein.
R	iciimond, Thomas -	- 1237	2nd May 1866	Looms for weaving.
R	ichmond, Thomas -	- 1775	4th July 1866	Looms for weaving.
R	ichmond, Tiiomas -	- 2848	13th Oct. 1866	3
R	ichmond, William -	- 572	24th Feb. 1866	Improvements in the manufacture of healds and reeds or combs, and in the machinery employed therein.
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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
RICHTER, ANTON	1157	24th April 1866	Joints or connections for pipes. (Patented by Charles Denton Abel.)
RICHTER, ANTON	2244	31st Aug. 1866	Joints or connections for pipes. (Patented by Charles Denton Abel.)
RICKARDS, JOHN LAURIE -	1344	10th May 1866	Candlesticks and apparatus connected therewith.
RIDLEY, MATTHEW	2505	28th Sept. 1866	Apparatus for raising and stacking straw and other agricultural produce.
RIEUX, PIERRE DU	2602	9th Oct. 1866	Filtering presses for expressing the liquid parts and retaining the solid parts of any semi-liquid substances. (Patented by Edward Thomas Hughes.)
RIEUX, PIERRE DU	3146	30th Nov. 1866	A new or improved mode of saccharatifica- tion of sugary substances. (Patented by Edward Thomas Hughes.)
Rigg, Arthur, jun	1415	18th May 1866	Apparatus for propelling and steering steam vessels.
RIGHETTI, PETER	1563	6th June 1866	Kilns or apparatus for generating heat.
RILEY, ISAIAH	3078	23rd Nov. 1866	Construction of links or shackles for con- necting chain cables and other chains.
RILEY, WILLIAM SPINKS -	491	16th Feb. 1866	Breech-loading fire-arms.
RIMMEL, EUGENE	678	6th March 1866	An improvement in portable fountains.
RIMMEL, EUGENE	2167	23rd Aug. 1866	Apparatus for raising liquids, particularly applicable to fountains.
Ripley, Abraham	2581	8th Oct. 1866	Improvements in the construction of water meters, which improvements are also applicable to the measuring of liquids generally.
RIPLEY, HENRY WILLIAM -	3279	12th Dec. 1866	Improvements in steam-boilers and in applying heat thereto.
RISBOURG, AUGUSTE LOUIS -	1119	20th April 1866	Working the switches or points on railways. (Patented William Edward Newton.)
RITCHIE, CHARLES	2009	3rd Aug. 1866	Ships' furniture in which a steady platform is required.
RITCHIE, JOSEPH HORATIO,	1322	8th May 1866	Attaching wooden planking to iron ships and other vessels.
RITCHIE, WILLIAM	45	5th Jan. 1866	Improved apparatus for feeding steam- boilers. (Patented by Alfred Vincent Newton.)
Rivière, Jean François [Abraham Henri de.	3130	28th Nov. 1866	Improvements in impermeable mastic com- positions, and in their application for various useful purposes. (Patented by William Clark.)
Robbins, Louis	2034	7th Aug. 1866	Preserving wood. (Patented by John Nicholls Browne.)
ROBERT-GILLON, CHARLES -	3339	19th Dec. 1866	Breech loading fire arms. (Patented by Franz Hayman.)
Roberton, James Warren	2757	25th Oct. 1866	1
ROBERTS, EDWIN	695	1	
ROBERTS, HENRY	. 695	1	
ROBERTS, HENRY	878	24th March 1866	An improved pencil for writing or marking upon textile fabrics. (Patented by Alfred Vincent Newton.)
ROBERTS, JOHN	. 2851	3rd Nov. 1866	
ROBERTS, JOHN HENRY -	2582	8th Oct. 1866	A new or improved fastening for windows and other places.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Roberts, Martyn John -	774	15th March 1866	Protecting iron ships and other submerged structures from corrosion and fouling.
Roberts, Martyn John -	1834	12th July 1866	Cooling worts and other liquids.
ROBERTSON, GEORGE SINCLAIR	24	3rd Jan. 1866	Manufacture of telegraph standards, fencing posts and signal posts.
ROBERTSON, HUGH	603	27th Feb. 1966	Improvements in the manufacture of oil and other products from bituminous substances, and in the machinery or apparatus employed therein, which improvements or parts thereof are also applicable to the manufacture of white lead or other pigments.
Robertson, James	286	29th Jan. 1866	Improvements in machinery for cutting, excavating, sinking, dredging and cleaning water-courses, basins, channels, foundations and roadways, such improvements being also applicable to other similar purposes.
ROBERTSON, JAMES	2586	8th Oct. 1866	Improvements in furnaces or fireplaces and in the fire-bars to be used therein.
Robertson, John	3048	.20th Nov. 1866	Apparatus for regulating and controlling the pressure and flow of fluids.
ROBERTSON, JOSEPH BUCHA- [NAN.	1201	28th April 1866	Sewing-machines.
ROBERTSON, MOSES PAUL -	2535	3rd Oct. 1866	An improved tie to be used in fastening bales of cotton and all merchandize to be packed and tied into bales. (Communicated by Charles William Wailey.)
ROBERTSON, WILLIAM	1630	16th June 1866	Looms for weaving.
ROBERTSON, WILLIAM	2814	31st Oct. 1866	Self-acting mules.
ROBERTSON, WILLIAM	2933	10th Nov. 1866	Carding-engines.
ROBERTSON, WILLIAM	3236	8th Dec. 1866	Machines driven by human, animal or other power, having a reciprocating motion, as gins, mowing and reaping machines, reciprocating saws, and others of that class.
Robey, James	952	3rd April 1866	Reburning animal charcoal.
Robin, Edmond	15	2nd Jan. 1866	An improved extensible apparatus for the passage of gases and fluids, especially adapted for gasaliers. (Patented by Richard Archibald Brooman.)
ROBIN, HENRI	15	2nd Jan. 1866	An improved extensible apparatus for the passage of gases and fluids especially adapted for gasaliers. (Patented by Richard Archibald Brooman.)
ROBINS, HENRY	2283	5th Sept. 1866	other floating bodies, and other iron structures subject to the action of sea and other waters.
ROBINSON, ARTHUR HENRY -	531	21st Feb. 1866	
ROBINSON, CHARLES JAMES -	2883	6th Nov. 1866	Improvements in pump valves, stop and let off cocks or valves, especially adapted for hydraulic presses and high water pressure. (Communicated by George Brunton.)
Robinson, George	2862	14th Sept. 1866	Manufacture or production of ammonia, baryta and strontia.
Robinson, John	546	22nd Feb. 1866	Reeds used in looms for weaving.

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Name of Patenteo.	Number of Patent.	Date.	Subject-matter of Patent.
Robinson, John	1858	11th May 186	6 Certain improvements in machinery for preparing, spinning and doubling, cotton or other fibrous substances.
Robinson, John	1982	lst Aug. 186	6 The Giffard injector. (Communicated by William Sellers.)
Robinson, John	2044	8th Aug. 186	6 Applying motive-power to saw frames.
Robinson, John	3081	23rd Nov. 186	6 Certain improvements in apparatus for economizing fuel by retaining and applying heat to the heating of water.
Robinson, John	8082	23rd Nov. 186	6 Certain improvements in apparatus for economizing fuel by retaining and applying heat to the heating of water in locomotive boilers.
Robinson, John	3267	12th Dec. 186	6 Applying motive-power to saw frames.
Robinson, John	8270	13th Dec. 186	- 66
Robinson, John Peter	2409	19th Sept. 186	Jackets, capes and other like garments for ladies.
Robinson, Matthew	546	22nd Feb. 186	Reeds used in looms for weaving.
ROBINSON, RICHARD	2354	13th Sept. 1866	9 9
ROBINSON, WILLIAM BOWMAN	2296	7th Sept. 186	(Patented by Charles Denton Abel.)
Robjohn, Thomas	2229	29th Aug. 1866	Looms. (Patented by John Garrett Tongue.)
ROBOTHAM, WILLIAM DOUGLAS	1022	10th April 186	Constructing the foundations and abutments of bridges, piers, jetties, retaining walls and other similar works.
Rochussen, Theodore An- [THONY.	2432	21st Sept. 1866	Constructing the permanent ways of rail- ways.
Rock, Frederick	2094	15th Aug. 1860	Certain improvements in self-acting fixed and repeating portable means for signal-ling on railways.
Rock, James, the younger -	404	9th Feb. 1860	Improvements in carriages and waggons with folding heads or coverings, and in carriage springs.
ROCK, THOMAS DENNIS	1285	5th May 1866	Stands for telescopes, surveying and other instruments, which stands are also applicable for other purposes.
ROCK, WILLIAM	898	8th Feb. 1866	Printing machines.
Röders, August	1276	4th May 1866	Manufacture of felt carpets.
Rodgers, Joseph	3389	24th Dec. 1866	Construction of drums, pulleys, "glazers"
Rodgers, Richard Green -	432	12th Feb. 1866	Certain improvements in the manufacture of textile fabrics termed "moleskins" or imperials and velveteens.
Roe, John	891	8th Feb. 1866	A new or improved adjustable lever spanner or screw wrench.
ROBCENER, CARL HEINEICH -	140	15th Jan. 1866	Improved machinery or apparatus for the manufacture of paper pulp.
RORTTGER, EDOUARD	2602	9th Oct. 1866	
ROETTGER, EDOUARD	3146	30th Nov. 1866	
ROGER, ROBERT	1842	13th July 1866	

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Rogers, Abraham	456	13th Feb. 1866	Improved means or apparatus for the extin- guishing of fires in steam vessels, mills, and other buildings in which steam is used.
Rogers, Maurice Cohen -	1546	4th June 1866	Method of and apparatus for fitting artificial teeth and retaining them in position. (Communicated by Moss Jones.)
Rogers, William	635	2nd March 1866	Certain improvements in the construction of the permanent way of railways.
Rollason, Alexander	8301	15th Dec. 1866	Manufacture of blasting cartridges and fusees.
Rollins, John Gustavus -	1474	26th May 1866	Horse rakes. (Communicated by Alzirus Brown.)
Rolls, Dudley	2109	16th Aug. 1866	Improvements in the manufacture of enve- lopes and of paper for making envelopes.
Romas, Guillaume Saint -	248 3	26th Sept. 1866	Machinery for raising water. (Patented by Henri Adrien Bonneville.)
Romer, James Lemuel	2942	10th Nov. 1866	Machinery for cutting and heading nails. (Patented by John Garrett Tongue.)
RONALD, JAMES	39	5th Jan. 1866	Improvements in or applicable to machinery for combing, dressing and disintegrating hemp, flax, wool, cotton and other fibres and fibrous materials.
ROOTS, FRANCIS MARION -	1333	9th May 1866	Rotary blowers. (Patented by William Edward Newton.)
Roots, John Benjamin	2466	25th Sept. 1866	Improvements in steam-engines, partly applicable to pumps and other apparatus in which pistons or plungers are used. (Patented by Alfred Vincent Newton.)
ROOTS, PHILANDER HIGHLEY	1833	9th May 1866	Rotary blowers. (Patented by William Edward Newton.)
Robe, Samuel	2944	10th Nov. 1866	File cutting machines. (Patented by John Henry Johnson.)
Rose, Thomas	1363	12th May 1866	Construction of water-closets.
Rossell, Henry	836	21st March 1866	Improvements in vices and in the mode of constructing the same.
Rossetter, William	1	1st Jan. 1866	Looms for weaving.
Rossetter, William	2654	13th Oct. 1866	Looms for weaving.
ROTHERY, JOSEPH	477	15th Feb. 1866	Improvements in machinery or apparatus for cutting coal and other minerals, and in the means for driving or actuating the same.
ROUART, STANISLAS HENRI -	1282	5th May 1866	Improved apparatus for exhausting and com- pressing air, applicable to the transmission of despatches and other objects through tubes, and to raising water. (Patented by George Davies.)
ROUGE, JEAN PIERRE VICTOR [LE.	1811	8th May 1866	Improvements in apparatus for propelling and steering ships, partly applicable to the transmission of motive-power. (Patented by John Henry Johnson.)
Routledge, Thomas	812	19th March 1866	Improvements in treating the waste liquors resulting from the preparation of esparto grass, alfa-straw and other fibrous aubstances, and in purifying the alkali recovered therefrom, and in furnaces or evaporating pans connected therewith.

Name of Patentec.	Number of Patent.	Date.	Subject-matter of Patent.
ROUTLEDGE, WILLIAM -	2954	12th Nov. 1866	Improved self-acting apparatus for cutting or getting coal, boring rocks or other substances, which apparatus is also applicable to steam hammers, mortising machines and other similar purposes.
Roux, François Louis -	- 257	26th Jan. 1866	Mode of and apparatus for applying copper sheathing to ships constructed of or plated with iron.
Rowan, John Martin -	946	3rd April 1866	Method of and apparatus for ascertaining latitude, longitude and Greenwich time.
Rowan, William	1444	23rd May 1866	Improvements in machinery for preparing and cleaning flax, tow, hemp, cotton, shoddy and other materials employed in textile manufactures and in the manufac- ture of paper.
Rowan, William	8865	21st Dec. 1866	Machinery for cleaning and preparing flar, hemp and other fibrous material, and for reducing the same to tow.
ROWATT, THOMAS the younger	208	22nd Jan. 1866	Lamps for burning paraffin, petroleum, bel- montine and other hydro-carbon oils, with- out the use of a glass chimney.
Rowbotham, Samuel	2077	14th Aug. 1866	Making caustic soda from common salt or chloride of sodium, by the action of lead or its oxide, and afterwards recovering the lead as oxide or otherwise for use again in making caustic soda from common salt.
Rowe, Daniel	2629	11th Oct. 1866	An improved toy.
Rowe, James John	2672	16th Oct. 1866	Taps or cocks for regulating the flow of fluids.
Rowland, Owen	2836	1st Nov. 1866	Improvements in galvanic batteries and in apparatus for testing the insulation of telegraphic conductors.
ROWLAND, ROBERT	1332	9th May 1866	An improvement in the manufacture of metal- lic acetates and carbonates simultaneously with the production of vinegar and glucose.
Rowley, Francis Joseph -	1889	20th July 1866	Gas pendants, gasaliers and gas brackets.
Roys, Thomas Welcome -	54	8th Jan. 1866	Improvements applicable to the hoisting or lifting tackle for recovering sunken whales or other submerged bodies.
Rozière, Charles	837	21st March 1866	Certain improved agents suitable for cleaning and such like purposes.
RUDLING, WILLIAM ATKINS -	96	11th Jan. 1866	Apparatus to be used for protecting property from fire and thieves.
RUDOLF, WILLIAM	1531	1st June 1866	Certain improvements in or connected with a triggers for small arms. (Patented by Marius Adrien Caire.)
RUDOLPH, WILLIAM	1378	15th May 1866	Gun locks. (Patented by Henry Grafton.)
Rue, Warren De La	1248	2nd May 1866	Manufacture of iron and steel.
Rue, Warren De La	1381	15th May 1866	Treating the residues of pyrites usually called burned ores.
RUE, WARREN DE LA	1383	15th May 1866	Treating printers' rags.
RUMBELOW, GEORGE	972	5th April 1866	Troughs for feeding pigs and other animals.
RUPPERT, FREDERICK	1125	20th April 1866	A new wheel pinion for riggers' driving operators.
RUSETT, EDWIN WILLIAM DE	2091	15th Aug. 1866	Improvements in pumps and in adapting them for propelling vessels and for other purposes.
			

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Russ, Edwin	760	14th March 1866	Fire-arms.
Russ, Edwin	2267	3rd Sept. 1866	Fire-arms.
Russ, William	710	8th March 1866	Apparatus for distributing water and liquid manure.
Russell, George Fitzjames	409	9th Feb. 1866	Manufacture of wheels for vehicles, railway rolling stock, the propulsion of vessels and other purposes.
Russell, George Fitzjames	1156	24th April 1866	Manufacture of gas.
Russell, Jacob	2942	10th Nov. 1866	Machinery for cutting and heading nails. (Patented by John Garrett Tongue.)
Russell, John	352	5th Feb. 1866	Certain improvements in preventing oxida- tion as also the fouling of the lower parts of iron-built ships, which said improve- ments are also applicable for protecting the inside or hull portion of such kind of ships, as well as the internal iron parts used for lining or strengthening vessels principally constructed of wood.
Russell, John Scott	569	23rd Feb. 1866	Building ships of war.
RYAN, WILLIAM	2507	28th Sept. 1866	An improved fire-escape.
RYDBECK, SVEN	593	26th Feb. 1866	Breech-loading fire-arms.
Ryder, Stephen Oscar -	1922	24th July 1866	Improvements in machinery for hulling and finishing rice, which improvements are also applicable to hulling and polishing other grain. (Patented by William Edward Newton.)
Ryder, Thomas	905	28th March 1866	An improved apparatus for mashing malt or grain to be used in the processes of brewing and distilling.
RYLEY, JOHN	418	10th Feb. 1866	Certain improvements in apparatus to be employed in the manufacture of "hair cloth."
Ryo-Catteau Joseph Marie	1151	24th April 1866	Spindles applicable to all machines for spinning and doubling cotton, wool, silk and other fibrous substances, as well as to all twiners.

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Sabinski, Olgeri	•	-	-	1888	20th July 18	66	Mode of and apparatus for generating gas for lighting, heating and other purposes. (Patented by Marc Antoine François Mennons.)
Sadler, John	-	-	-	74	10th Jan. 18	66	An improved nail and brad cutting machine.
SAGAR, THOMAS	-	-	-	52	8th Jan. 18	66	Certain improvements in looms for weaving.
SAGAR, THOMAS	-	-	-	792	17th March 18	366	Construction of safes.
SAGAR, THOMAS	-		-	1237	2nd May 18	66	Looms for weaving.
SAGAR, THOMAS	-	-	-	1775	4th July 18	66	Looms for weaving.
SAGAR, THOMAS	_	-	-	2648	13th Oct. 18	66	Looms for weaving.
SAGE, FREDERICK	-	-	-	840	21st March 18	66	Show cases.
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Name of Patentee.		Number of Patent.	Date.	Subject-matter of Patant.
SAGE, FREDERICK	_	2401	18th Sept. 1866	Show cases or boxes.
SAINTY, JOHN	-	1547	4th June 1866	Construction of horse shoes.
SALAMON, NAHUM	-	1874	18th July 1866	An improvement in sewing machinery. (Communicated by Amasa Bemis Howe.)
Salkeld, Samuel John	-	380	8th Feb. 1866	Spring bed bottoms. (Communicated by John Jay Haley.)
Salmon, John Aiken -	-	1789	6th July 1866	Certain improvements in furnaces.
SALOM, SALOM HENRY -	-	890	27th March 1866	Improvements in the construction of goggles to be used for the cure of "strabismus" or squint, which said improvements are also applicable to the stages of microscopes.
Salvy, Lorenzo	-	735	10th March 1866	An improved manufacture of studs, buttons, ornamental plates and analagous articles used in saddlery and harness, upholstery, military equipments, clothing and for other purposes, making them either of rolled, cast or wrought metal, or of any hard material, such as horn, ivory, guttapercha, wood or hardened india-rubber, and with two or several shanks or metal fastening rings or prongs. (Patented by William Edward Gedge.)
Salvy, Lorenzo	-	2322	10th Sept. 1866	An improved manufacture of studs, buttons, ornamental plates and analogous articles used in saddlery and harness, upholstery, military equipments, clothing and for other purposes, making them either of rolled, cast or wrought metal, or of any hard material, such as horn, ivory, guttapercha, wood or hardened india-rubber, and with two or several shanks or metal fastening rings or prongs. (Patented by William Edward Gedge.)
Sampson, Charles -	-	77	10th Jan. 1866	Apparatus for effecting the folding or rigging and the papering of woven fabrics.
Sampson, Charles -	-	1849	14th July 1866	Means or apparatus for effecting the "fold- ing" and "papering" of woven fabrics.
Sampson, Edward Barna	RD	8427	29th Dec. 1866	Saucepans, kettles and other vessels for culinary purposes.
Sampson, Henry	-	77	10th Jan. 1866	Apparatus for effecting the folding or rigging and the papering of woven fabrics.
Sampson, Henry	-	1 84 9	14th July 1866	Means or apparatus for effecting the "fold- ing" and "papering" of woven fabrics.
Sampson, Joseph	-	77	10th Jan. 1866	Apparatus for effecting the folding or rigging and the papering of woven fabrics.
Sampson, Joseph	-	1849	14th July 1866	Means or apparatus for effecting the "fold- ing" and "papering" of woven fabrics.
Sams, Joseph Henry -	_	2397	18th Sept. 1866	Straining or tightening wire.
SAMUELS, SAMUEL -		2302	7th Sept. 1866	An improved railway break.
SAMUELS, SAMUEL -	-	3077	23rd Nov. 1866	An improved railway break, a portion of the apparatus of which can also be employed as a means of communication between the guard and driver of a railway train.
Samuelson, Carl Erik	-	3233	7th Dec. 1866	Apparatus for propelling vessels. (Communicated by Samuel Arnold Samuelson.)
Samuelson, Martin -	-	560	23rd Feb. 1866	Construction of ships with a view to the saving of life at sea.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Samuelson, Samuel Arnold	3233	7th Dec. 1866	Apparatus for propelling vessels. (Patented by Carl Erik Samuelson.)
Samwells, John	148	16th Jan. 1866	A new method of and apparatus for washistraw and other plaits and other sustances, and for domestic washing process.
Sanceau, Urbain	1810	8th May 1866	An improved clarifying apparatus. (Patented by William Edward Gedge.)
Sanderson, Henry	2075	13th Aug. 1860	
Sanderson, Peter -	1189	27th April 1866	Improvements in the manufacture of yar and in the machinery or apparatus e ployed therefor.
Sanderson, Peter -	8216	6th Dec. 186	Improvements in the manufacture of yau and in the machinery or apparatus e ployed therefor.
Sanderson, Robert -	3216	6th Dec. 1866	Improvements in the manufacture of yar and in the machinery or apparatus e ployed therefor.
Sang, Edward	3185	4th Dec. 1866	Sewing machines.
SARGENT, CHARLES G	2626	11th Oct. 1866	Machinery or apparatus for opening a cleaning wool and other fibrous materia (Patented by Richard Edmund Lazonb
SARGENT, CHARLES G	8070	22nd Nov. 1866	Machinery or apparatus for opening a cleaning fibrous materials. (Patented by Richard Edmund Lazonby
Saul, David Henry -	2558	4th Oct. 1860	ting gas.
Saunders, John	1902	21st July 1866	
Saunders, Jones ·	2699	18th Oct. 1860	Packing pistons and stuffing-boxes. (Patented by James Hosken.)
Sausser, William	2923	9th Nov. 1866	(Patented by William Edward Newton.
Sauvan, Louis	963	4th April 1860	(Patented by Michael Henry.)
Savage, Elliot ·	1938	25th July 1866	Improvements in treating iron for the p pose of converting it into steel or he metal, and for plating or coating a hardening and tempering iron and steel (Patented by William Edward Newton
Saville, Thomas Prosper -	1691	25th June 1866	Breech-loading fire-arms.
SAVORY, WILLIAM	2441	22nd Sept. 1866	for cotton gins.
Savourbau, Jean Hippolyti	2980	14th Nov. 1866	An improved apparatus to teach bookeeping. (Patented by Henri Adrien Bonneville.)
Sawyer, Joseph	381	8th Feb. 1866	1 <u> </u>
SAWYER, JOSEPH	1980	1st Aug. 186	cesses for the manufacture of paper pu from wood and other fibrous materials.
Sayer, Charles Frederick	2089	15th Aug. 1860	An improved and simple method for a working of perpendicular sliding sash doors and shutters, or any other perpen cular sliding fittings, by the aid of spri rollers, and the construction of the securing moveable beads to admit of su sliding sashes, doors and shutters, or other perpendicular sliding fittings being take out for the purpose of cleaning or otherwise.

SCHAUBEL, WILLIAM 1227 lst May 1866 Steam-boilers. SCHENCK, JOHN 1884 19th July 1866 Sewing-machines. (Patented by George Davies.) SCHLAEPFER, JOHN JAMES - 48 6th Jan. 1866 Locks. (Patented by Frederick Neidlinger.) SCHLICHTER, ISAAC 408 9th Feb. 1866 Spinning and drawing rollers. (Patented by Frederick Tolhausen.) SCHLUMBERGER, JULES ALBERT 3152 30th Nov. 1866 Manufacture of green coloring matter. (Patented by William Clark.) Manufacture of green coloring matter. (Patented by William Clark.) An improved system of drainage for the dwellings of towns and other localities,				
SCHADLEL, WILLIAM 1827 lst May 1866 SCHAUBEL, WILLIAM 1827 lst May 1866 SCHAUBEL, WILLIAM 1829 lst May 1866 SCHAUBERFER, JOHN JAMES - 48 SCHLICHTER, ISAAC 408 SCHLICHTER, ISAAC 408 SCHLIMBERGER, JULES ALBERT SCHLIMBERGER, JULES ALBERT [WILHELM.] SCHMICK, JOHNN PETER [WILHELM.] SCHMICK, JOHNN PETER [WILHELM.] SCHMICK, JOHANN PETER [WILHELM.] SCHMICK, JOHANN PETER [WILHELM.] SCHMICK, JOHANN PETER [WILHELM.] SCHMICHEL, CARL 178 SCHMICHEL, CARL 1864 SCHOPIELD, JOSEPH 2579 SCHOPIELD, JOSEPH 2579 SCHOPIELD, HUGH 1506 SCHOPIELD, THOMAS - 3840 SCHOPIELD, THOMAS - 3840 SCHOPIELD, THOMAS - 3840 SCHOPIELD, THOMAS - 3840 SCHOONMAKER, SYLVERTER [FRANKLIN.] SCHOONMAKER, THEODORE OTTO [LUDWIG.] SCHRADER, THEODORE OTTO [LUDWIG.] SCHREDER CORNET MANU- [FRANKLIN.] SCHRODER, FREDERICK HILLS SCHUCKERS, JACON WILLIAM 2800 SCHUCKERS, J	Name of Patentee.	of	Date.	Subject-matter of Patent.
SCHAUBEL, WILLIAM - 1827 184 May 1866 SCHENCK, JOHN - 1884 1846 184 1846 SCHENCK, JOHN - 1884 1846 SCHLAEPFER, JOHN JAMES - 48 6th Jan. 1866 (Patented by Frederick Neidlinger.) SCHLICHTER, ISAAC - 408 9th Feb. 1866 (Patented by Frederick Neidlinger.) SCHLUMBERGER, JULES ALBERT 1037 SCHMICK, JOHANN PETER (WILHELM. 1037 SCHMICK, JOHANN PETER (WILHELM. 1037 SCHMICK, JOHANN PETER (WILHELM. 1037 SCHNEIGHEL, CARL - 178 SCHNEIGHEL, CARL - 178 SCHNEIGHEL, CARL - 1864 SCHOENFELD, JOSEPH - 2579 6th Oct. 1866 SCHOENFELD, JOSEPH - 2579 6th Oct. 1866 SCHOENFELD, THOMAS - 3340 20th Dec. 1866 SCHOENFELD, THOMAS - 3340 20th Dec. 1866 SCHOENMAKER, SYLVESTER (FANKLIN. SCHOONMAKER, THOODORE OTTO (LUDWIG. SCHRADER, FREDERICK HILLS 1866) SCHUCKERS, JACOB WILLIAM 2890 7th Nov. 1866 Repire machiner, Incubactors or apparatus apparatus, and in coloking and drying apparatus. SCHUCKERS, JACOB WILLIAM 2890 7th Nov. 1866 Repire machines.	SCAIPE, ROBERT	19	3rd Jan. 1866	Machinery or apparatus for preparing and spinning cotton and other fibrous materials.
SCHENCK, JOHN 1884 19th July 1866 (Patented by George Davies.) SCHLARPFER, JOHN JAMES - 48 6th Jan. 1866 (Patented by Frederick Neidlinger.) SCHLICHTER, ISAAC - 408 9th Feb. 1866 (Patented by Frederick Neidlinger.) SCHLUMBERGER, JULES ALBERT 3152 30th Nov. 1866 (Patented by Indian Clerk.) SCHMICK, JOHANN PETER (WILHELM. 1037 12th April 1866 (WILHELM. 1037 12th April 1866 (Patented by Milliam Clerk.) SCHNEICHEL, CARL - 178 19th Jan. 1866 (Patented by Green coloring matter. (Patented by William Clerk.) SCHNEICHEL, CARL - 1884 17th July 1866 (Patented by Charles Denion Abel.) SCHNEICHEL, CARL - 1884 17th July 1866 (Patented by Affred Viscent Neidon.) SCHNEICHEL, JOHN - 2998 17th Sept. 1866 (Sth Oct. 1866 (St	Schad, Ludwig	3326	18th Dec. 1866	Treating aniline colors for dyeing and printing.
SCHLAEPFER, JOHN JAMES - 48 6th Jan. 1866 SCHLAEPFER, JOHN JAMES - 48 6th Jan. 1866 SCHLIGHTER, ISAAC - 408 SCHLIGHTER, ISAAC - 408 SCHLUMBERGER, JULES ALBERT SCHMICK, JOHANN PETER [WILHELM. 1037 SCHMEICH, JOHANN PETER [WILHELM. 2968 SCHNEICH, CARL - 178 SCHNEICH, CARL - 1864 SCHNEICH, JOSEPH - 2579 SCHOENFELD, JOSEPH - 2579 SCHOENFELD, THOMAS - 3840 SCHOPIELD, THOMAS - 3840 SCHOENFELD, THOMAS - 3840 SCHOONMAKER, SYLVESTER [FRANKLIN. SCHOONMAKER, THEODORE OTTO [LUDWIG. SCHRADER, FREDERICK HILLS 2567 SCHOCKERS, JACOB WILLIAM 2908 Th. Nov. 1866 SCHUCKERS, JACOB WILLIAM 2908 Th. Nov. 1866 SCHUCKERS, JACOB WILLIAM 2908 Th. Nov. 1866 SCHUCKERS, JACOB WILLIAM 2908 Th. Nov. 1866 Th. Nov. 1866 SCHUCKERS, JACOB WILLIAM 2908 Th. Nov. 1866 Th. Detained by Frederick Neidela, (Patented by Juliam Edward) Schuckers, JACOB WILLIAM 2908 Th. Nov. 1866 Th. Jacob William Clark.) An improved system of drainage for the dwellings of towns and other similar articles. (Patented by William Clark.) Improved machinery for spinning yarn. (Patented by Alfred Viscent Newton.) Process of making improved beer and algorithm obsture. An improved machinery for spinning yarn. (Patented by Alfred Viscent Newton.) Process of distilling petroleum and other oils. (Patented by Alfred Viscent Newton.) Process of distilling petroleum and other marking in spinning yarn. Process of distilling petroleum and other hards under the similar musical instruments. (Patented by William Edward Newton.) Process of distilling petroleum and other hards under the similar musical instruments. (Patented by Milliam Edward Newton.) Process of distilling petroleum and	SCHAUBEL, WILLIAM	1227	lst May 1866	
SCHLICHTER, ISAAC - 408 9th Feb. 1866 Spinning and drawing rollers. SCHLUMBERGER, JULES ALBERT 3152 30th Nov. 1866 Spinning and drawing rollers. SCHMICK, JOHANN PETER [WILHELM. 1037 12th April 1866 Manufacture of green coloring matter. SCHNEICHEL, CARL - 178 19th Jan. 1866 Improved system of drainage for the dwellings of towns and other localities, and apparatus employed in connection therewith. SCHNEICHEL, CARL - 1864 17th July 1866 Improved machinery for spinning yarn. SCHNEIDER, JOHN - 2298 7th Sept. 1866 SCHOENFELD, JOSEPH - 2879 6th Oct. 1866 SCHOENFELD, HUGH - 1850 30th May 1866 Fastenings for purses, cigar cases, travelling bags and other similar articler thereof. SCHOLEY, AUGUSTUS - 2969 13th Nov. 1866 Machinery for raising the pile on fustians and other cotton fabrics. SCHOONMAKER, SYLVESTER [FAANKLIN. 1866 Sth Aug. 1866 Schoonmaker, Sylvester [Faanklin. 1864 1865 Spinning and drawing rollers. SCHOONMAKER, SYLVESTER [FAANKLIN. 1866 Schoonmaker, Sylvester [Faanklin. 1864 1865 Spinning and drawing rollers. SCHOONMAKER, SYLVESTER [FAANKLIN. 1866 Schoonmaker, Sylvester [Faanklin. 1864 1866 Schoonmaker, Sylvester [Faanklin. 1864 1866 Schoonmaker, Sylvester [Faanklin. 1864 1866 Schoonmaker, Sylvester [Faanklin. 1866	Schenck, John	1884	19th July 1866	
SCHLUMBERGER, JULES ALBERT SCHMICK, JOHANN PETER [WILHELM.] SCHMEICHEL, CARL - 178 SCHNEICHEL, CARL - 1884 SCHOENFELD, JOSEPH - 2579 SCHOENFELD, JOSEPH - 2579 SCHOENFELD, HUGH - 1806 SCHOFIELD, THOMAS - 3340 SCHOFIELD, THOMAS - 2989 SCHOONMAKER, SYLVESTER [FRANKLIN.] SCHOONMAKER, SYLVESTER	Schlaepfer, John James -	48	6th Jan. 1866	
SCHLUMBERGER, JULES ALBERT SCHMICK, JOHANN PETER [WILHELM.] SCHNEICHEL, CARL - 178 12th April 1866 SCHNEICHEL, CARL - 178 19th Jan. 1866 SCHNEICHEL, CARL - 1864 17th July 1866 SCHNEICHEL, CARL - 1864 17th July 1866 SCHNEICHEL, CARL - 1864 17th July 1866 SCHOENFELD, JOSEPH - 2579 6th Oct. 1866 SCHOENFELD, JOSEPH - 1506 30th May 1866 SCHOENFELD, HUGH - 1806 3840 20th Dec. 1866 SCHOENFELD, THOMAS - 3840 20th Dec. 1866 SCHOONMAKER, SYLVESTER [FRANKLIN.] SCHOONMAKER, SYL	SCHLICHTER, ISAAC	408	9th Feb. 1866	Spinning and drawing rollers. (Patented by John Henry Johnson.)
WILHELM. Schneichel, Carl - 178 19th Jan. 1866 1864 17th July 1865 1864 17th July 1865 1864 17th July 1866 1864 17th July 1866 1865 1866	Schlumberger, Jules Albert	3152	30th Nov. 1866	Manufacture of green coloring matter.
SCHNEIGHEL, CARL - 1864 17th July 1866 Improved machinery for spinning yarn. (Patented by Alfred Vincent Newton.) SCHNEIDER, JOHN - 2998 7th Sept. 1866 Improved machinery for spinning yarn. (Patented by Alfred Vincent Newton.) SCHOENFELD, JOSEPH - 2579 6th Oct. 1866 Improved machinery for spinning yarn. (Patented by Alfred Vincent Newton.) SCHOFIELD, HUGH - 1506 6th Oct. 1866 Improvements in incubators or apparatus. SCHOONMAKER, SYLVESTER [FRANKLIN.] SCH		1037	12th April 1866	An improved system of drainage for the dwellings of towns and other localities, and apparatus employed in connection therewith.
Carried by Alfred Viscent Newton. Carried by Alfred Viscent Newton.	SCHNEICHEL, CARL	178	19th Jan. 1866	Improved machinery for spinning yarn.
SCHOENFELD, JOSEPH 2579 6th Oct. 1866 Fastenings for purses, cigar cases, travelling bags and other similar articles. (Patented by William Edward Newton.) SCHOFIELD, HUGH 3340 30th May 1866 Improvements in weft forks and in tools employed in the manufacture thereof. SCHOFIELD, THOMAS 3340 20th Dec. 1866 Machinery for raising the pile on fustians and other cotton fabrics. SCHOONMAKER, SYLVESTER [FRANKLIN. SCHOONMAKER, SYLVESTER	SCHNEICHEL, CARL	1864	17th July 1866	Improved machinery for spinning yarn. (Patented by Alfred Vincent Newton.)
SCHOENFELD, JOSEPH - 2579 6th Oct. 1866 Fastenings for purses, cigar cases, travelling bags and other similar articles. (Patented by William Edward Newton.) SCHOFIELD, HUGH 3340 30th May 1866 Improvements in weft forks and in tools employed in the manufacture thereof. SCHOFIELD, THOMAS - 3340 20th Dec. 1866 Machinery for raising the pile on fustians and other cotton fabrics. SCHOONMAKER, SYLVESTER [FRANKLIN. SCHOONMAKER, SYL	Schneider, John	2298	7th Sept. 1866	A process of making improved beer and ale.
SCHOFIELD, THOMAS 3340 SCHOLEY, AUGUSTUS 2969 SCHOONMAKER, SYLVESTER [FRANKLIN. SCHOONMAKER, SYLVESTER [FRANKL	Schoenfeld, Joseph	2579		Fastenings for purses, cigar cases, travelling bags and other similar articles.
SCHOLEY, AUGUSTUS - 2969 13th Nov. 1866 Nails or similar fastenings. SCHOONMAKER, SYLVESTER [FRANKLIN.] SOURCE BY SYLVESTER [FRANKLIN.] SCHOONMAKER, SYLVES	Schofield, Hugh	1506	30th May 1866	employed in the manufacture thereof.
SCHOONMAKER, SYLVESTER [FRANKLIN.] SCHOONMAKER, SYLVESTER [SCHOONMAKER, SYLVESTER [FRANKLIN.] SCHOONMAKER, SYLVESTER [FRA	Schofield, Thomas	3340	20th Dec. 1866	
[FRANKLIN. SCHOONMAKER, SYLVESTER [FRANKLIN. SCHRADER, THRODORE OTTO [LUDWIG. SCHRADER, THRODORE OTTO [LUDWIG. SCHRADER, THEODORE OTTO [LUDWIG. SCHRADER, THEO	Scholey, Augustus	2969	13th Nov. 1866	Nails or similar fastenings.
SCHOONMAKER, SYLVESTER [FRANKLIN.] SCHRADER, THRODORE OTTO [Ludwig.] SCHRADER, THRODORE OTTO [Ludwig.] SCHRADER, THEODORE OTTO [Ludwig.] SCHRADER, THEODORE OTTO [Ludwig.] SCHRADER, THEODORE OTTO [Ludwig.] SCHRADER CORNET MANU- [FACTURING COMPANY.] SCHREIBER CORNET MANU- [FACTURING COMPANY.] SCHRÖDER, FREDERICK HILLS SCHRÖDER, FREDERICK HILLS SCHRÖDER, FREDERICK HILLS SCHUCKERS, JACOB WILLIAM SCHUCKERS, JACOB WILLIAM SSCHUCKERS, JACOB WILLIAM SSCHUCKERS, JACOB WILLIAM SSCHOONMAKER, SYLVESTER [FRANKLIN.] SCHOONMAKER, SYLVESTER [FRANKLIN.] SCHUCKERS, JACOB WILLIAM SSCHOONMAKER, SYLVESTER [FRANKLIN.] SCHOONMAKER, SYLVESTER [FRANKLIN.] SCHOONM		704	8th March 1866	Dredging and elevating machinery.
[FRANKLIN.] SCHOONMAKER, SYLVESTER [FRANKLIN.] SCHOONMAKER, SYLVESTER [FRANKLIN.] SCHOONMAKER, SYLVESTER [FRANKLIN.] SCHRADER, THEODORE OTTO [LUDWIG.] SCHREIBER CORNET MANU- [FACTURING COMPANY.] SCHREIBER CORNET MANU- [FACTURING COMPANY.] SCHRÖDER, FREDERICK HILLS SCHRÖDER, FREDERICK HILLS SCHUCKERS, JACOB WILLIAM 2903 7th Nov. 1866 Reaping-machines.		1064	14th April 1866	
SCHRADER, THEODORE OTTO [LUDWIG. 2498 27th Sept. 1866 An improvement in the process of distilling petroleum and other oils. (Patented by Alfred Vincent Newton.) SCHRADER, THEODORE OTTO [LUDWIG. 2685 17th Oct. 1866 Process of distilling petroleum and other oils or substances. (Patented by Alfred Vincent Newton.) SCHREIBER CORNET MANU- [FACTURING COMPANY. 2468 25th Sept. 1866 Cornets and other similar musical instruments. (Patented by William Edward Newton.) SCHRÖDER, FREDERICK HILLS 2567 5th Oct. 1866 Improvements in incubators or apparatus for hatching eggs, and in other heating apparatus, and in cooking and drying apparatus. SCHUCKERS, JACOB WILLIAM 2903 7th Nov. 1866 Reaping-machines.		2198	25th Aug. 1866	
[Ludwig.] Schrader, Theodore Otto [Ludwig.] Schreiber Cornet Manu- [Facturing Company.] Schröder, Frederick Hills Schröder, Frederick Hills Schuckers, Jacob William [Schuckers, Jacob William [Schuckers, Jacob William [Schuckers, Jacob William [Schuckers, Jacob William [Schröder, Frederick Hills [Schuckers, Jacob William [Schuckers] [Sch	SCHOONMAKER, SYLVESTER	3392	24th Dec. 1866	materials designed to receive lead pencil marks, which may be repeatedly expunged
[Ludwig. 2468] Schreiber Cornet Manu- [Facturing Company. 25th Sept. 1866] Schröder, Frederick Hills 2567 Sth Oct. 1866 Schröder, Frederick Hills 2567 Sth Oct. 1866 Schuckers, Jacob William 2908 Th Nov. 1866 Reaping-machines.	1	2496	27th Sept. 1866	petroleum and other oils.
FACTURING COMPANY. SCHRÖDER, FREDERICK HILLS 2567 Sth Oct. 1866 Improvements in incubators or apparatus for hatching eggs, and in other heating apparatus, and in cooking and drying apparatus. SCHUCKERS, JACOB WILLIAM 2908 7th Nov. 1866 Reaping-machines.	1	2685	17th Oct. 1866	oils or substances.
for hatching eggs, and in other heating apparatus, and in cooking and drying apparatus. Schuckers, Jacob William 2908 7th Nov. 1866 Reaping-machines.		2468	25th Sept. 1866	ments.
	Schröder, Frederick Hills	2567	5th Oct. 1866	for hatching eggs, and in other heating apparatus, and in cooking and drying
	Schuckers, Jacob William	2903	7th Nov. 1866	

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Schultes, Friedrich Wil-	1340	10th May 1866	Obtaining green coloring matters of various shades for dyeing and printing. (Patented by Read Holliday.)
SCHUTZENBERGER, PAUL -	1966	31st July 1866	The application to medicine, for beverages, and for industrial purposes, of a new gaseous water. (Patented by Alfred Paraf.)
SCHUYLER, IRAAC SMITH -	672	5th March 1866	An improved process of bleaching. (Patented by Alfred Vincent Newton.)
Schwartz, Charles	8	lst Jan. 1866	An instrument for cutting and cleaning finger nails.
Schweitzer, Julius	944	3rd April 1866	Manufacture of pancreatic emulsions of solid and liquid fats and oils.
Schwitter, Anton	658	3rd March 1866	Rose engines. (Patented by William Clark.)
Schwitter, Lewis	653	3rd March 1866	Rose engines. (Patented by William Clark.)
SCOTT, HENRY GEORGE	2248	31st Aug. 1866	Improvements in valves for pumps, said improvements being also applicable to steam valves.
Scott, John	2601	9th Oct. 1866	Machinery or apparatus for combing wool or other fibrous substances.
Scott, Јони	2816	31st Oct. 1866	Improvements in fire-escapes and apparatus for raising and lowering weights, the same being applicable to other useful purposes.
Scott, John	2818	31st Oct. 1866	Improvements in pneumatic signal apparatus or means for giving alarms in case of fire, or for indicating variations of temperature for other useful purposes.
SCOTT, ROBERT ANTHONY [EDWARDS.	2124	18th Aug. 1866.	Manufacture of hollow projectiles.
SCOTT, ROBERT ANTHONY EDWARDS.	2139	20th Aug. 1866	Improved method of or apparatus for manœuvring guns.
SCOTT, ROBERT ANTHONY [Edwards.	2328	10th Sept. 1866	Improvements in gun carriages and in the mode of elevating and depressing guns.
SCOTT, ROBERT ANTHONY EDWARDS.	2837	11th Sept. 1866	Mode of mounting and working revolving and other guns.
SCOTT, ROBERT ANTHONY [EDWARDS.	2338	11th Sept. 1866	Improvements applicable to gun carriages and platforms or slides.
SCOTT, THOMAS	995	7th April 1866	Sinking tubes, cylinders or caissons for the foundations of piers, lighthouses, quay walls and similar structures, and for the sinking of mine shafts and wells.
SCOTT, URIAH	369	7th Feb. 1856	Improvements in various parts of railway and other carriages, some of which may be applied to other purposes.
SCOTT, WILLIAM DUNDAS -	2547	3rd Oct. 1866	Improvements in raising vessels, and in the machinery or apparatus employed therefor.
SEAMAN, JOSEPH SIDNEY -	796	17th March 1866	Machinery for rolling and straightening cylindrical metallic rods and tubes. (Patented by Frederick Collier Bakewell.)
SEARLE, GEORGE ELLIOTT -	2544	4th Oct. 1866	Improvements in ear-rings, which improve- ments may also be applied to the fasten- ing of watch hooks and other articles of jewellery.
SEATON, WILLIAM	1951	27th July 1866	Permanent way of railways.

26D] YEA			
Name of Patentee.	Number of Patent,	Date.	Subject-matter of Patent.
SEBILLE, CHARLES	2240	30th Aug. 1866	An improved pavement for roads, streets and other thoroughfares. (Patented by John Henry Johnson.)
SECQUEVILLE, VISCOUNT [CHARLES DE.	86	10th Jan. 1866	Treatment of copper and nickel ores. (Patented by George Chetwynd.)
Sée, Edmond	2650	13th Oct. 1866	The application of enamel to certain friction surfaces of looms for weaving. (Patented by Louis Rudolph Bodmer.)
Sée, Paul	831	21st March 1866	Certain improvements in self-acting mules for spinning. (Patented by Louis Rudolph Bodmer.)
Sée, Paul	2650	13th Oct. 1866	The application of enamel to certain friction surfaces of looms for weaving. (Patented by Louis Rudolph Bodmer.)
SEELEY, GEORGE	1307	8th May 1866	Penholders.
SEITZ, CARL DIETRICH JULIUS	3091	24th Nov. 1866	An improvement connected with the bleaching of fibrous substances, and with the manufacture of bleaching powder, bleach liquor or sulphuric acid.
SELBY, BENJAMIN WILLIAM -	776	15th March 1866	Manufacture of lace in twist lace machines.
SELBY, WILLIAM	2290	6th Sept. 1866	Manufacture of ornamental lace in twist lace machines.
SELBY, WILLIAM	8213	6th Dec. 1866	Manufacture of lace made in twist lace machines.
SELLARS, JOHN CARRINGTON	23	3rd Jan. 1866	Cement for making good the joints in oil stills and retorts, and joints exposed to medium or high temperatures.
Sellars, John Carrington	1568	7th June 1866	Improvements in treating coal, cannel, shale or their compounds, or the residuum thereof from calcination or distillation, and in manufacturing plastic substances and forms, cements, pigments, colouring matter and manure therewith.
SELLARS, JOHN CARRINGTON	2479	26th Sept. 1866	A new and improved metal founders' black- ing, and mode of treating or preparing the same.
Sellers, James	8003	16th Nov. 1866	Looms for weaving.
SELLERS, WILLIAM	1982	1st Aug. 1866	The Giffard injector. (Patented by John Robinson.)
SELLIER, EMILE	2270	4th Sept. 1866	An improved rotary steam-engine. (Patented by George White.)
SELWYN, JASPER HENRY -	1926	25th July 1866	Shaping metals and other ductile materials.
SEMPLE, MATTHEW	1422	19th May 1866	A new method of obtaining motive-power and the apparatus employed therein.
Sequelin, Scipion	1171	26th April 1866	Purification, clarification and preparation of animal and vegetable wax, tallow, oils, and other similar waxy and fatty substances.
Severn, George	747	12th March 1866	Improvements in the means and apparatus employed for evaporating and cooling liquids, applicable to various purposes.
Seward, James	1591	11th June 1866	Apparatus for preventing 'priming,' and for the discharge of condensed steam from steam pipes, and for regulating the pressure of steam in steam pipes.
Sewell, George	2725	22nd Oct. 1866	An improved construction of salinometer pot. (Patented by Alfred Vincent Newton.)

	Number		
Name of Patentee.	of Patent.	Date.	Subject-matter of Patent.
Seyd, Ernest	415	10th Feb. 1866	Manufacture of woollen damasks. (Communicated by Wilhelm Vogel.)
SEYMOUR, PHILLIP WILLIAM -	2886	7th Nov. 1866	A new magnetic compound applicable to the manufacture of articles suitable for curative and other beneficial and useful purposes.
SHAFFNER, TALIAFERRO [PRESTON.	1177	26th April 1866	Uniting and combining mineral and metallic substances with vegetable fibres and fabrics. (Patented by George Haseltine.)
SHALER, NATHANIEL SOUTH-	8112	26th Nov. 1866	Preserving animal and vegetable substances.
Shanks, Andrew	3874	22nd Dec. 1866	Certain improvements in making metallic hoops.
Shanks, John	794	17th March 1866	Steam-boilers and feed-heating and other apparatus connected therewith.
Sharp, James	1411	18th May 1866	An improved combustible and inextinguishable compound.
Sharp, James	2779	27th Oct. 1866	An improved explosive compound or powder.
SHARPE, EDMUND	590	26th Feb. 1866	An improved method of agglomerating peat, by which it is rendered suitable for use as fuel in the furnaces of manufactories, and in other fire-places. (Patented by William Edward Gedge.)
SHARPES, CHRISTIAN	789	16th March 1866	Breech-loading fire-arms. (Patented by John Henry Johnson.)
SHAW, BENTLEY	8400	27th Dec. 1866	An improved safety bottle case.
Shaw, Charles Albert -	948	3rd April 1866	A new knitting machine. (Communicated by Jonas Hinkley.)
Shaw, George	2909	8th Nov. 1866	Improvements in the manufacture of coke and the small coke called breezes, and in the manufacture of coal gas. (Communicated by August Condar Dewies.)
SHAW, HANNAH WHITE	3398	27th Dec. 1866	Ladies' wearing-apparel.
SHAW, HENRY	289	30th Jan. 1866	Means and apparatus of communicating motion or power from the engine of a train to any part of the train.
Shaw, John	888	8th Feb. 1866	Certain improvements in mechanism for opening and cleaning cotton and other fibrous materials.
Shaw, John	2888	7th Nov. 1866	Preparing and spinning machinery.
Shaw, Robert	76	10th Jan. 1866	Improvements in apparatus for regulating temperature, for recording temperature and for actuating time-keepers.
Shaw, Thomas	1882	19th July 1866	Machinery for condensing wool or other fibrous substances.
SHAW, WILLIAM	2100	15th Aug. 1866	Manufacture of elastic and other fabrics.
SHEDLOCK, JAMES JOHN -	416	10th Feb. 1866	Gas burners.
Sheppield, George Valen- [Tine.		8th Sept. 1866	Improvements in leather and in machines for manufacturing the same. (Patented by William Clark.)
SHEKLETON, JAMES	175	19th Jan. 1866	Pumping engines for feeding and forcing fluids.

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Name of Patentee.	Number of Patent.	Date.		Subject-matter of Patent.
SHELDON, JOSEPH	1829	9th May	1866	Water pressure regulators. (Communicated by John Bishop.)
Sheppard, George	20	3rd Jan.	1866	Rollers for rolling or crushing land.
SHERATON, GEORGE ROBERT -	1763	3rd July	1866	A new or improved instrument to be used in cases of difficult parturition.
SHERIDAN, CHARLES	34 35	29th Dec.	1866	A new or improved process for the manufacture of oakum.
SHERMAN, SYLVESTER JUDSON	1015	9th April	1866	Improvements in the hoops of ladies' skirts and in the covering of steel springs for the same and analogous uses.
SHERWOOD, HENRY	265	26th Jan.	1866	Means of and apparatus for treating mixed fibrous substances in order to obtain improved products therefrom, parts of which means and apparatus are also applicable to various useful purposes.
SHIELDS, WILLIAM	1019	10th April	1866	Machinery for engraving and etching rollers and other surfaces.
SHILLCOCK, JOSEPH BRADLEY	192	20th Jan.	1866	A perforated cage for leech vases.
SHINNER, GEORGE WILLIAM -	· 1026	10th April		Means of and apparatus for utilizing sewsge matters and liquids.
SHINNER, GEORGE WILLIAM -	2806	9th Oct.		Means of and apparatus for utilizing sewage matters and liquids.
SHIVE, DAVID	1379	15th May	1866	Centrifugal governors. (Patented by George Haseltine.)
SHIVERICK, BENJAMIN	2509	28th Sept.	1866	Railway switches. (Patented by John Henry Johnson.)
SHORLAND, WILLIAM BURROW	1865	17th July		Improvements in or applicable to handles for actuating locks, bars, bolts or latches.
SHORROCK, GEORGE	1241	2nd May	1866	Pickers for looms.
Shorrock, James	1241	2nd May	1866	Pickers for looms,
SHORTHOUSE, JOSEPH HENRY	2825	31st Oct.	1866	An improved process for recovering and utilizing certain waste metallic products.
SHREWSBURY, GEORGE	34 38	31st Dec.	1866	An improved apparatus for heating apartments, conservatories and baths.
SHURTLEFF, WILLIAM HENRY	1275	4th May	1866	Improvements in apparatus for lacing boots and shoes, gaiters and other articles of dress, and in the mode of attaching the same. (Patented by John Henry Johnson.)
Sibley, John	2037	8th Aug.	1866	Certain improvements in machinery or apparatus for spinning and doubling cotton or other fibrous material.
Sichel, Charles	1876	18th July	1866	Sewing and button hole machines. (Patented by Frederick Tolkausen.)
SICELER, REUBEN MARTIN [VAN.	8814	17th Dec.	1866	An improved construction of elevator. (Patented by Alfred Vincent Newton.)
SIDDALL, JOSEPH HOLFORD -	888	2nd Feb.	1866	Improved machinery for breaking hemp and flax. (Patented by Alfred Vincent Newton.)
SIDDONS, WILLIAM jun -	2227	29th Aug.	1866	An improved cartridge or cartridge case extractor for breech-loading guns.
SIEMENS, CHARLES WILLIAM	6 71	5th March	1866	Improvements in the manufacture of sinc and in the construction of furnaces connected therewith, which latter improvements are also applicable to other metallurgical processes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SIEMENS, CHARLES WILLIAM	2413	20th Sept. 1860	Improvements in smelting metallic ores and in furnaces to be employed for that purpose.
SIEMENS, CHARLES WILLIAM	8090	24th Nov. 1866	Means and apparatus employed for conveying telegraphic despatches, letters and other light articles through tubes. (Partly communicated by Dr. Werner Siemens.)
Siemens, Werner	2090	24th Nov. 1866	Means and apparatus employed for conveying telegraphic despatches, letters and other light articles through tubes. (Patented by Charles William Siemens.)
SILVER, STEPHEN WILLIAM -	1027	10th April 186	. 1
Silver, Thomas	882	24th March 186	An improved mode of controlling or govern- ing the speed of machinery, more especially applicable to machines for paying out submarine telegraph cables.
SILVESTER, JOHN	2318	8th Sept. 1866	Manufacture of the handles of sad irons and other smoothing and tailors' and hatters' irons.
SILVESTER, MARK	228	23rd Jan. 186	An improved compound for removing and preventing incrustation in steam-boilers.
SILVESTRE, LOUIS JEAN PIERRE	1750	2nd July 186	An improved safety lock. (Patented by Henri Adrien Bonneville.)
SIMARD, PROSPER	1795	7th July 186	Manufacture of envelopes by the combination of memorandum, counterfoil and seal lap in one piece.
SIMMONS, GEORGE HENRY [JAMES.	965	5th April 186	A new kind of self-acting fire alarm to make known the existence of fire in warehouses, factories, dwelling houses and other premises.
Simon, Samuel Bruckshaw-	395	8th Feb. 186	Improvements in the manufacture of hats and in apparatus employed therein. (Communicated by John Thomas Jones.)
Simon, Samuel Bruckshaw -	2233	30th Aug. 186	6 Lifting jacks. (Communicated by Augustus Bryant Childs.)
Simons, William	21	3rd Jan. 186	Improvements in the conveying of materials and in the apparatus employed therefor.
Simons, William	784	10th March 186	Bolts to be used in the building or construc- tion of ships or vessels.
SIMONS, WILLIAM	842 1	29th Dec. 186	6 Arrangement and construction of dredgers.
SIMPSON, CORTLAND HERBERT	3032	19th Nov. 186	6 Steam-engines and propellers for propelling vessels.
SIMPSON, EDWIN LINDSEY -	2707	19th Oct. 186	An improved process for the preparation of india-rubber and kindred gums.
SIMPSON, MICHAEL HODGE -	8888	19th Dec. 186	6 Apparatus for the prevention of sea sickness.
SIMPSON, TRISTRAM SHANDY -	2776	26th Oct. 186	boats, which improvements are chiefly applicable to the construction of life boats.
SIMPSON, WILLIAM	2698	18th Oct. 186	Improved machinery, apparatus and processes for preparing and treating vegetable fibres, to be used as "half-stuff" in the manufacture of paper, papier maché and such like materials.
Sims, Reuben	368	7th Feb. 186	6 Certain improvements in reaping and mowing machines.

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Name of Patontee.	Number of Patent.	Date.	Subject-matter of Patent.
SINGER, ISAAC MEBRITT -	1215	30th April 1866	Improvements in or applicable to carriages. (Patented by George Davies.)
SINIBALDI, CELESTE	3274	13th Dec. 1866	Construction of stoves for cooking or other purposes.
Sisson, Henry Tillinghast	875	24th March 1866	Portfolios and paper files. (Patented by George Tomlinson Bousfield.)
Sival, Désiré	2461	25th Sept. 1866	Lace machinery. (Patented by Clinton Edgcumbe Brooman.)
SIVAL, LÉON	2461	25th Sept. 1866	Lace machinery. (Patented by Clinton Edgcumbe Brooman.)
Skaipe, Thomas	2939	10th Nov. 1866	Improved apparatus to be used in obtaining photograms.
Skinner, James	66	9th Jan. 1866	An improved mode of preparing albumenized paper and the process connected therewith.
Skinner, James	626	lst March 1866	Steering apparatus.
SLACK, JAMES CORBETT HOLT- [ZAPHELL.	1097	19th April 1866	Fastenings of the metallic hoops or bands employed in baling cotton and other sub- stances.
SLATER, GEORGE	2500	27th Sept. 1866	Churns.
SLATER, JAMES BRIERLEY -	1631	16th June 1866	Machinery for making moulds for casting iron and other metal.
Slatter, Joseph	3422	29th Dec. 1866	An improved screen or sifter for screening cinders, corn, tea, sugar, gravel, malt and other granular substances.
SLEIGH, BURROWS WILLCOCKS [ARTHUR.]	8431	29th Dec. 1866	Hydrostatic rotatory motive-power engines.
Slessor, John	2681	17th Oct. 1866	Distilling alcoholic spirits.
SLOPER, JOSEPH	3373	22nd Dec. 1866	Improved means of and apparatus for obtaining motive-power applicable for driving machinery and for ventilating mines, buildings, ships and other spaces.
Smales, Joseph	1830	12th July 1866	Machinery or apparatus for facilitating the adjustment and testing the working parts of locomotive engines.
SMALLEY, JOHN	542	21st Feb. 1866	Looms for weaving a certain class of fabrics.
Smeeton, John	3182	4th Dec. 1866	Signalling apparatus for railway trains.
Smith, Alfred	295	30th Jan. 1866	Sewing machines.
Smith, George Hindes -	750	13th March 1866	An improvement in the manufacture or pre- paration of substances and materials for polishing metallic and other surfaces.
SMITH, HAMILTON LAMPHIER	1710	27th June 1866	Mode of distilling or separating volatile products from oils and other fluids. (Patented by William Rabert Lake.)
SMITH, HENRY	220	23rd Jan. 1866	Mode of producing mechanical motion. (Patented by William Brookes.)
SMITH, HENRY FRANCIS -	120	13th Jan. 1866	Certain improvements in the manufacture of beds or mattresses to be employed on shipboard, or in similar articles to be used as supports in water.
Sмітн, Нисн	1891	21st July 1866	Rivetting, boring and other apparatus and arrangements to be used in constructing ships, bridges, boilers and other metallic structures.
SMITH, IRAAC	2036	7th Aug. 1866	Chucks for turning lathes and other tools. (Patented by William Edward Newton.)

Name of Patentee.	Number of Patent.	Date.	!	Subject-matter of Patent.
Smith, James	2605	9th Oct. 18	366	Improvements in and applicable to that class of furnace fire-grates on which the fuel is made to travel.
Sмітіі, Јонк	1774	4th July 18	366	Manufacture of ribbed pile fabrics.
Smith, John	2044	8th Aug. 18	366	Applying motive-power to saw frames.
Sмітн, Jонн	2672	16th Oct. 18	866	Taps or cocks for regulating the flow of fluids.
Sміти, Jоня	2682	17th Oct. 18	866	Apparatus for working the healds employed in looms for weaving.
Sмітн, Јони	3267	12th Dec. 18	866	Applying motive-power to saw frames.
Smith, Joseph		• • • • •	866	Apparatus used for the protection of trains on railways, by signalling.
Smith, Josiah Timmis	103	12th Jan. 18	866	Moulds for casting the tyres of railway wheels and other annular and cylindrical articles.
Smith, Levi	1700	26th June 18	866	An improvement in the pistons of steam- engines, which improvement is also appli- cable to air pump buckets.
Smith, Pearson	2289	6th Sept. 18	866	Improvements in the making of wool guard coverings of gill boxes for the preparing and drawing of wool, silk, mohair and other fibrous substances.
SMITH, PHILIP	2467	25th Sept. 10	866	Improvements applicable to the manufac- ture of chloride of lime or bleaching powder, and in apparatus connected therewith.
SMITH, PRINCE, the elder -	516	19th Feb. 18	866	Weighting top pressing rollers for dandy roving and spinning of wool, worsted, silk, mohair, alpaca and other fibrous substances.
SMITH, PRINCE, the elder -	1858	16th July 1	866	An improved method of and apparatus for lubricating the spindles of cap spinning and doubling frames, which apparatus is also applicable as a cleaner to flyer spin- ning and doubling frames.
Smith, Richard	2728	23rd Oct. 1	866	Machines for making paper. (Patented by John Henry Johnson.)
SMITH, ROBERT	467	14th Feb. 1	1866	Certain improvements in printing designs on paper for hangings, coverings, sun blinds and other purposes.
Smith, Robert	1411	18th May 1	866	An improved combustible and inextinguishable compound.
Smith, Robert	2779	27th Oct. 1	866	An improved explosive compound or powder.
SMITH, ROBERT	8231	7th Dec. 1	866	Improvements in the manufacture of yarns used for weaving textile fabrics, and in the machinery or apparatus employed therefor.
SMITH, ROBERT FRAZER -	1827	12th July 1	1866	A certain improved method of producing illuminating gas.
SMITH, SAMUEL	3416	29th Dec. 1	1866	Certain improvements in "governors" or regulators for steam or other motive-power engines.
SMITH, SYDNEY	2105	16th Aug. 1	1866	An improved heating apparatus. (Patented by William Robert Lake.)
SMITH, THOMAS	1730	29th June 1	1866	Improved machinery for facing or smooth- ing the surface of stone.

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Name of Patentee.	Number of Patent.	Date.		Subject-matter of Patent.
Smith, Thomas James	365	6th Feb.	1866	Lubricating the axles and bearings of rail- way rolling stock and other machinery. (Communicated by François Haeck.)
SMITH, THOMAS JONES	563	23rd Feb.	1866	Steam-engines.
Smith, Thomas Jones	1520	31st May	1866	An improved apparatus to be employed in drawing liquids from casks and other vessels.
Smith, Walton	293	30th Jan.	1866	Machinery or apparatus for grinding or glazing spindles for preparing and spinning machinery, and other spindles or shafts.
SMITH, WILLIAM	546	22nd Feb.	1866	Reeds used in looms for weaving.
Smith, William	1664	22nd June	1866	Improvements in the manufacture of trim- mings and in the machinery employed therein.
SMITH, WILLIAM	2020	6th Aug.	1866	An improved horse road scraper and brush.
SMITH, WILLIAM	2108	16th Aug.		An improvement applicable to reaping machines.
SMITH, WILLIAM	8417	29th Dec.		An improved street sweeper.
SMITH, WILLIAM FORD	8247	10th Dec.	1866	Improvements in the construction and ma- nufacture, and in apparatus employed in the manufacture of tool holders and cut- ters, and in machinery for grinding or sharpening cutters and tools used in laths, in planing and other machines for cutting and shaping metals and other materials.
Smith, William Horatio -	447	13th Feb.	1866	Improvements in obtaining and applying artificial heat for producing light and for other purposes, and in the apparatus employed therein.
SMITH, WILLIAM WASTENEYS	8080	23rd Nov.	1866	An improved method of fixing or securing the tires of railway wheels.
Smyth, George	278	29th Jan.	1866	Manufacture of printed floor cloths, oil cloths, table covers and other similar fabrics.
Snakers, Guillaume Joseph	8010	16th Nov.	1866	Spinning machinery. (Patented by Clinton Edgcumbe Brooman.)
SNELL, WILLIAM	1453	24th May	1866	Tobacco pipes. (Communicated by Louis Goetsch.)
SNIDER, JACOB, jun ^e	283	29th Jan.	1866	Construction of breech-loading fire-arms.
Snowball, George	1314	8th May	1866	Improvements in watch pendants, which improvements are more particularly applicable to keyless watches.
Soames, James	471	14th Feb.	1866	Purifying paraffin.
Soames, James Kolle	471	14th Feb.	1866	Purifying paraffin
Soans, Richard	1856	16th July	1866	Machines for dressing or for removing dirt and foreign matters from currents and other fruit.
Somers, Philip Wheeler -	2389	17th Sept.	1866	Improvements in the art of felting or sizing hat bodies, and machinery therefor. (Patented by George Tomlinson Bousfield.)
Somerville, Thomas	3105	26th Nov.	1866	Improvements in the modes of cutting metal tubes or pipes, and in the machinery or tools employed for these and other analogous purposes. (Patented by William Richard Middlemore Thomson.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Soper, Wildiam	1187	27th April 1866	Improvements in the mode of mounting targets for rifle ranges, and in the construction of markers' screens and signals designed for use with the same.
SOUTAR, SAMUEL	681	6th March 1866	Improved apparatus for cleaning the tubes of steam-boilers. (Communicated by Daniel McDowell.)
Southall, Charles Henry	3099	24th Nov. 1866	Self-acting machinery or apparatus for uni- ting together two or more strips of leather or other material, to be used as machine belts, straps or bands, or for other similar purposes.
Southall, Henry	3239	8th Dec. 1866	Buckles.
SOUTHWELL, EDWIN	1864	12th May 1866	Production of photographic prints.
Southwell, Frederick -	1864	12th May 1866	Production of photographic prints.
SOUTHWELL, WILLIAM HENRY	1364	12th May 1866	Production of photographic prints.
Soutter, James, sent	245	25th Jan. 1866	Centres for supporting swinging mirrors.
Sovereign, Levi Lemon -	1910	23rJ July 1866	An improved implement for beating and cutting meat and other substances.
Sowden, David	1335	10th May 1866	Looms for weaving.
Spagnoletti, Charles Er- [nesto.	2542	3rd Oct. 1866	Arranging and combining apparatus for com- municating between the guard, engine driver and passengers in a railway train.
Spagnoletti, Charles Er- [nesto.	2880	6th Nov. 1866	Arranging and combining apparatus for communicating between the guard, engine driver and passengers in a railway train.
Sparrow, James	1023	10th April 1866	Collecting the heated gases from blast furso as to utilise the same.
Spear, John	649	3rd March 1866	Construction of vices.
Speight, George	1954	27th July 1866	Improvements in collars for the neck and in wristbands.
Speight, George	8824	18th Dec. 1866	An improvement in certain articles of wear- ing-apparel, commonly called shirt fronts or dickeys, and chemisette fronts.
Spence, John	1102	19th April 1866	An improved composition for coating or covering ships' bottoms and other surfaces subjected to the action of sea water. (Patented by Robert Hamilton.)
Spence, Peter	1256	3rd May 1866	Improvements in the separation of certain metals from their ores, and in the produc- tion of sulphide of ammonium to be used in the process, which sulphide is also ap- plicable to other purposes for which that salt is required.
Spence, Peter	2048	8th Aug. 1866	Production of sal-ammoniac in a commercial form.
Spencer, George	168	18th Jan. 1866	Vulcanized india-rubber springs for use in railway and other engines, carriages and trucks, and for other purposes.
Spencer, George	1481	28th May 1866	Supporting the rails of railways.
Spencer, James Hawthorne	8007	16th Nov. 1866	Coverings for floors. (Patented by John Henry Johnson.)
Spencer, John	¹ 266	27th Jan. 1866	Machinery for rolling and clod crushing.
Spencer, John	1225	1st May 1866	Rolling mills.
Spencer, Thomas	240	24th Jan. 1866	Preparation of soils to promote general vegetation and prevent insalubrious or unhealthy exhalations from manures placed thereon.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Spencer, Thomas	- 356	5th Feb. 1866	Mode of and apparatus for filtering water and other fluids.
Spencer, Thomas	- 576	24th Feb. 1866	Improvements in the manufacture of articles of earthenware and in machinery or apparatus connected therewith.
Spencer, William -	- 350	5th Feb. 1866	Manufacture of Valenciennes lace in twist lace machines.
Spengler, Frederic -	- 8856	20th Dec. 1866	Breech-loading fire-arms. (Patented by René Louis Martin.)
SPEYSER, LOUIS GONZAGUE	- 1768	3rd July 1866	Improvements in machinery for making bricks, which improvements are also applicable for moulding blocks for building or for artificial fuel, or for other purposes.
Speyser, Louis Gonzague	- 84 50	31st Dec. 1866	Mixing apparatus for mixing mortar and similar materials.
Spineux, Ferdinand -	- 2882	17th Sept. 1866	Spinning wool and other fibrous materials. (Patented by John Dunn.)
SPINK, DANIEL	- 354	5th Feb. 1866	Propelling and steering vessels.
Spiquel, Michel	- 1189	23rd April 1866	Stamping on flatted or unflatted metals.
Spiquel, Michel	- 1140	23rd April 1866	Incurvating or rendering concavo-convex, metals either in a flatted or unflatted state.
Spooner, George Dennis	- 8860	20th Dec. 1866	An improved coupling for railway carriages. (Patented by William Robert Lake.)
Spooner, John	- 1478	26th May 1866	An improved album for exhibiting photographs and other pictures. (Patented by Corey McFarland.)
Squire, John Jay	- 1578	7th June 1866	Jars for preserving fruits, meats and other substances. (Patented by William Edward Newton.)
STACE, WILLIAM RALPH	- 2026	6th Aug. 1866	Manufacture of carbonates and bi-carbonates of soda and potash, the soluble and insoluble silicates of soda and potash, and muriatic acid, from chlorides of sodium and potassium. (Patented by William Edward Newton.)
STACKHOUSE, RACHEL -	- 1158	24th April 1866	Improvements in charts, maps, plans, illuminated and other printed articles, by the use of a waterproof and untearable material as a substitute for paper.
Stackpole, Greenleaf	- 1284	5th May 1866	Drawing or propelling boats, barges, rafts and other similar structures, on canals, rivers and such like waters. (Patented by Clinton Edgcumbe Brooman.)
STALLARD, WILLIAM HENE	Y 2082	7th Aug. 1866	An improved lamp.
STANDISH, CHARLES WILLI	AM 801	17th March 1866	Stoppering bottles.
STANLEY, RICHARD -	- 156	17th Jan. 1866	Certain improvements in railway breaks.
STANLEY, WILLIAM FORD	- 664		Mathematical drawing instruments.
STANLEY, WILLIAM HUBER	т - 1246	1	Cricket wickets.
STAPPER, HEINRICH -	- 2958	12th Nov. 1866	Apparatus for testing the lubricity of oils and other lubricants.
Star, Moritz	- 2584	8th Oct. 1866	Improvements applicable to caps and other coverings for the head, for naval, military and general use.
STARBUCK, GEORGE -	- 28	3rd Jan. 1866	Cement for making good the joints in oil stills and retorts, and joints exposed to medium or high temperatures.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
STARK, ALEXANDER ROGER -	1854	16th July 1866	Means of fixing the covers of gas retorts.
STARK, ALEXANDER ROGER	2400	18th Sept. 1866	Manufacture of gas.
STARNES, GEORGE FREDERICK	1769	3rd July 1866	Cotton gins.
Starr, Henry	2471	25th Sept. 1866	Improvements in lamps for and in th mode of burning volatile oils, spirits an other fluids. (Communicated by Henry Arthur Gadsden
Statham, Harry	1289	5th May 1866	Improvements in or applicable to carriage buffer, draw and other springs.
STATHER, THOMAS	1841	13th July 1866	Mills for grinding corn and other hard sub stances.
STAUFEN, WRENER	14	2nd Jan. 1866	Treatment and application of vegetable fibres.
Staufen, Weener	1761	2nd July 1866	Treatment and application of vegetab
STAUNTON, CHABLES OCTAVIUS	298	30th Jan. 1866	Improvements in ordnance and carriage and in elevating apparatus for the same.
STEAD, HORATIO	833	21st March 1866	Apparatus for opening or expanding fabric during their passage through machines employed in processes of finishing.
STEAD, JAMES WHITLEY -	2811	8th Sept. 1866	Weighing machines and indicators.
Stell, George	1204	28th April 1866	Spinning machinery.
Stenson, Joseph	1617	14th June 1866	Manufacture and remelting of iron steel.
Stenson, Joseph	3280	13th Dec. 1866	Manufacture and remelting of iron ar steel.
Stephens, James	150	16th Jan. 1866	Improvements in the construction of article usually termed blowers, being plates curtains applied to enclose stove front and in the means of affixing the same.
STEPHENSON, REUBEN CAL- [VERT.	1835	10th May 1866	Looms for weaving.
Sterne, Louis	294	30th Jan. 1866	Buffers, draw springs and bearing springs. (Partly communicated by Edward Lindne
STEVEN, ALEXANDER	2465	25th Sept. 1866	Apparatus for elevating or conveying yarr or similar materials.
Stevens, Benjamin Franklin	1628	15th June 1866	A new or improved method of treating pe manent inflammable gases whereby great heat is obtained therefrom. (Communicated by Simon Stevens.)
Stevens, Ebenezer	2121	18th Aug. 1866	Kitchen ranges, ovens and steamers.
Stevens, Ebenezer	2663	15th Oct. 1866	Forks, steels and knife sharpeners.
Stevens, Levi	1348	10th May 1866	Improved apparatus for manufacturing illuminating gas. (Patented by Alfred Vincent Newton.)
STEVENS, SIMON	1628	15th June 1866	A new or improved method of treating permanent inflammable gases whereby greatheat is obtained therefrom. (Patented by Benjamin Franklin Steven
Stevenson, James	655	3rd March 1866	Machinery or apparatus for perforating rocks to facilitate the formation of tunels, galleries of mines and for othe similar purposes. (Communicated by Theophilus Berrens.)
STEVENSON, JAMES COCHRAN	2749	24th Oct. 1866	Furnaces for the manufacture of alkali.
STEVENSON, JAMES COCHRAN	2981	12th Nov. 1866	Manufacture of sods or alkali.

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STEWART, ROBERT - 2451 STEWART, WILLIAM - 2815 STEWART, WILLIAM - 2815 STIDOLPH, CHARLES - 1972 STIDOLPH, GEORGE FREDERICK STIDOLPH, JOHN - 3074 STIDOLPH, JOHN - 3074 STIBPPEL, PHILIPF - 870 STIBPPEL, PHILIPF - 870 STILES, ANERL CLEMENT - 8360 STOCKER, ALEXANDER SOUTH- [WOOD. STOCKER, ALEXANDER S				·
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STEWART, WILLIAM - 2815 8th Sept. 1866 STICHT, CHARLES - 1972 31st July 1866 STICHT, CHARLES - 1972 31st July 1866 STIDOLPH, GEORGE FREDERICK 8074 22nd Nov. 1866 STIDOLPH, GEORGE FREDERICK 8074 22nd Nov. 1866 STIDOLPH, JOHN - 8074 22nd Nov. 1866 STIDOLPH, JOHN - 8074 22nd Nov. 1866 STIRPPEL, PHILIPP - 870 24th March 1866 STIRPPEL, PHILIPP - 870 24th March 1866 STILES, ANERL CLEMENT - 8380 20th Dec. 1866 STOCKER, ALEXANDER SOUTH- [WOOD. ST	STEWART, CHARLES PATRICK	2864	14th Sept. 1866	Tools or machines for cutting, drilling, slotting, slot drilling, shaping and planing metals and other substances.
STICHT, CHARLES 1973 SISTUMY 1866 STIDOLPH, GEORGE FREDERICK STIDOLPH, GEORGE FREDERICK STIDOLPH, GEORGE FREDERICK STIDOLPH, JOHN 3074 22nd Nov. 1866 STIDOLPH, JOHN 3074 22nd Nov. 1866 STIDOLPH, JOHN 3074 22nd Nov. 1866 STIBPFEL, PHILIPP - 970 STILES, ANERL CLEMENT - 3860 STOCKER, ALEXANDER SOUTH- [WOOD. STOCKER,	STEWART, ROBERT	2451	24th Sept. 1866	Machinery or apparatus for filtering liquids. (Patented by William Edward Newton.)
STIDOLPH, GEORGE FREDERICK STIDOLPH, GEORGE FREDERICK STIDOLPH, JOHN 3074 22nd Nov. 1866 STIDOLPH, JOHN 3074 22nd Nov. 1866 STIEPPEL, PHILIPP - 870 STILES, ANEEL CLEMENT - 3860 STILES, ANEEL CLEMENT - 3860 STOCKER, ALEXANDER SOUTH- [WOOD. STOCKER, ALEXANDER SOUTH- [WOOD. STOCKER, ALEXANDER SOUTH- [WOOD. STOCKER, ALEXANDER SOUTH- STODDARD, ARTHUR FRANCIS STODDARD, ARTHUR FRANCIS STODDARD, ARTHUR FRANCIS STODDART, ALPRED - 442 STODDART, ALPRED - 445 STODDART, ALPRED - 1976 STOKES, WILLIAM - 1976 STOKES, WILLIAM - 1976 STOKES, WILLIAM - 1976 STORES, WILLIAM - 1976 STORES, MESBITT DE LANEY - 421 STORES, JACOB JONES - 1492 STORER, JACOB JONES - 1493 STORER, JACOB JONES - 1493 STORER, JACOB JONES - 1493 STORER, JACOB JONES - 2763 STORER, JACOB JONES - 3407 STORER, JACOB JO	Stewart, William	2315	8th Sept. 1866	Improvements in water-closets, and in valves and regulating apparatus for the same and other purposes.
STIDDLPH, JOHN 3074 22nd Nov. 1866 STIEFFEL, PHILIPP - 870 24th March 1866 STILES, ANERL CLEMENT - 880 20th Dec. 1866 STOCKER, ALEXANDER SOUTH- [WOOD. STOCKER	Sticht, Charles	1972	31st July 1866	
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STILES, ANEEL CLEMENT - 3380 20th Dec. 1866 An improved coupling for railway carriages (Patented by William Robert Lake.) STOCKER, ALEXANDER SOUTH- [WOOD.] STOCKER, JACOB JONES - [WOOD.] STOCKER, JACOB JONES - [WOOD.] STOCKER, JACOB JONES - [WOOD.] STOCKER	Stidolph, John	8074	22nd Nov. 1866	Improvements in shop fittings, applicable also to book shelves and other articles of furniture.
STOCKER, ALEXANDER SOUTH- [WOOD. STORE, ALEXANDER SOUTH- [WOOD. STORE SOUTH- [WOOD	STIEFFEL, PHILIPP	870	24th March 1866	An improved fly for moderating or regulating the movements of wheel work.
STOCKER, ALEXANDER SOUTH— [WOOD.] STOCKS, JAMES 681 5th March 1866 STODDARD, ARTHUR FRANCIS STODDARD, ALFRED - 442 24th Sept. 1866 STODDART, ALFRED - 689 7th March 1866 STODDART, ALFRED - 689 7th March 1866 STOCKES, WILLIAM - 1976 1st Aug. 1866 STOCKES, WILLIAM - 1976 1st Aug. 1866 STORER, JACOB JONES - 1471 26th May 1866 STORER, JACOB JONES - 1492 29th May 1866 STORER, JACOB JONES - 1492 29th May 1866 STORER, JACOB JONES - 1493 29th May 1866 STORER, JACOB JONES - 2763 26th Oct. 1866 STORER, JACOB JONES - 2763 25th Oct. 1866 STORER, JACOB JONES - 2763 25th Oct. 1866 STORER, JACOB JONES - 2763 27th April 1866 STOREY, THOMAS 907 29th March 1866 STOREY, THOMAS 907 29th March 1866 STOREY, THOMAS 1183 27th April 1866 Improvements in the manufacture of cap sules applicable to bottles and other receptacles. An improved superheater for a certain clas of steam-boilers, known as "flash firers." An ew or improved artificial coal or fuel. A new or improved proced in illusory exhibitions. Improvements in breech-loading fire-arms and in cartridges for breech-loading fire-arms. Carriages and castors for sewing-machines. (Patented by William Robert Lake.) Use and application of fuel, and of chemica reagents to eliminate its impurities of those of the substances it is to heat. An improved process and apparatus for obtaining metals and saleable product from ores and minerals, adapted particularly to the reduction of sulphurets. STOREY, THOMAS 907 29th March 1866 STRANG, JAMES 1183 27th April 1866 Improvements in op tubes and in shuttle skewers.	Stiles, Annel Clement -	336 0	20th Dec. 1866	An improved coupling for railway carriages. (Patented by William Robert Lake.)
STOCKS, JAMES		2899	18th Sept. 1866	Improvements appertaining to bottles.
STODDARD, ARTHUR FRANCIS STORES, ALFRED - 689 7th March 1866 A new or improved artificial coal or fuel. Apparatus to be employed in illusory exhibitions. Improvements in breech-loading fire-arms and in cartridges for breech-loading fire-arms and in cartridges for breech-loading fire-arms. Carriages and castors for sewing-machines. (Patented by William Robert Lake.) Use and application of fuel, and of chemica reagents to eliminate its impurities of those of the substances it is to heat. An apparatus and process for removing dust and gases from air, which they cal a draft and spray wheel. STORER, JACOB JONES - 1493 29th May 1866 STORER, JACOB JONES - 2763 STORER, JACOB JONES - 2763 STORER, JOHN 2763 STORER, JOHN 2763 STORER, JOHN 3763 STOREY, EDWARD 3407 29th March 1866 STOREY, THOMAS 907 29th March 1866 STOREY, THOMAS 907 29th March 1866 Improvements in cop tubes and in shuttle skewers.		3245	8th Dec. 1866	Improvements in the manufacture of cap- sules applicable to bottles and other receptacles.
STODDARD, ARTHUR FRANCIS STODDART, ALFRED 689 7th March 1866 STODDART, ALFRED 689 7th March 1866 STORES, WILLIAM 1976 1st Aug. 1866 STOOPS, NESBITT DE LANEY - 421 10th Feb. 1866 STORER, JACOB JONES 1471 26th May 1866 STORER, JACOB JONES 1492 29th May 1866 STORER, JACOB JONES 1492 29th May 1866 STORER, JACOB JONES 1493 29th May 1866 STORER, JACOB JONES 2763 26th Oct. 1866 STOREY, EDWARD 2763 26th Oct. 1866 STOREY, THOMAS 907 29th March 1866 STOREY, THOMAS 907 29th March 1866 STOREY, THOMAS 907 29th March 1866 STOREY, JAMES 1183 27th April 1866 Improvements in cop tubes and in shuttle skewers.	Stocks, James	661	5th March 1866	An improved superheater for a certain class of steam-boilers, known as "flash firers."
STODDARY, ALFRED 689 7th March 1866 STODDARY, ALFRED 689 7th March 1866 STODDARY, ALFRED 689 7th March 1866 STORES, WILLIAM 1976 1st Aug. 1866 STOOPS, NESBITT DE LANEY - 421 10th Feb. 1866 STORER, JACOB JONES 1471 26th May 1866 STORER, JACOB JONES 1492 29th May 1866 STORER, JACOB JONES 1492 29th May 1866 STORER, JACOB JONES 1493 29th May 1866 STORER, JACOB JONES 1493 29th May 1866 STORER, JACOB JONES 1493 29th May 1866 STORER, JACOB JONES 1498 29th May 1866 STORER, JOHN 2763 26th Oct. 1866 STOREY, EDWARD 2763 26th Oct. 1866 STOREY, THOMAS 907 29th March 1866 STOREY, THOMAS 907 29th March 1866 STOREY, THOMAS 907 29th March 1866 STOREY, JAMES 1188 27th April 1866 Improvements in cop tubes and in shuttle skewers.	STODDARD, ARTHUR FRANCIS	2449	24th Sept. 1866	A new or improved artificial coal or fuel.
STODDART, ALFRED 689 7th March 1866 STORES, WILLIAM 1976 1st Aug. 1866 STORES, WILLIAM 1976 1st Aug. 1866 STORES, NESBITT DE LANEY - 421 10th Feb. 1866 STORER, JACOB JONES 1471 26th May 1866 STORER, JACOB JONES 1492 29th May 1866 STORER, JACOB JONES 1492 29th May 1866 STORER, JACOB JONES 1493 29th May 1866 STORER, JOHN 2763 25th Oct. 1866 STOREY, EDWARD 3407 29th March 1866 STOREY, THOMAS 907 29th March 1866 STOREY, THOMAS 907 29th March 1866 STOREY, JAMES 1183 27th April 1866 Improvements in cop tubes and in shuttle skewers.	· .	2450	
STORER, WILLIAM 1976	· .	442	· -	Apparatus to be employed in illusory exhi-
STORER, JACOB JONES 1492 29th May 1866 STORER, JACOB JONES 1492 29th May 1866 STORER, JACOB JONES 1498 29th May 1866 STORER, JOHN 2763 26th Oct. 1866 STOREY, EDWARD 3407 28th Dec. 1866 STOREY, THOMAS 907 29th March 1866 STOREY, THOMAS 907 29th March 1866 STOREY, JAMES 1183 27th April 1866 Improvements in cop tubes and in shuttle skewers.	STODDART, ALFRED	689	7th March 1866	Apparatus to be employed in illusory exhibitions.
STORER, JACOB JONES 1471 26th May 1866 Use and application of fuel, and of chemica reagents to eliminate its impurities of those of the substances it is to heat. STORER, JACOB JONES 1492 29th May 1866 An apparatus and process for removing dust and gases from air, which they cal a draft and spray wheel. STORER, JACOB JONES 1493 29th May 1866 An improved process and apparatus for obtaining metals and saleable product from ores and minerals, adapted particularly to the reduction of sulphurets. STORER, JOHN 2763 26th Oct. 1866 Lubricators. STOREY, EDWARD 3407 28th Dec. 1866 Improvements in or applicable to marine locomotive, stationary and other steam boilers. STOREY, THOMAS 907 29th March 1866 Improvements in cop tubes and in shuttle skewers.	STOKES, WILLIAM	1976	lst Aug. 1866	Improvements in breech-loading fire-arms, and in cartridges for breech-loading fire-arms.
reagents to eliminate its impurities of those of the substances it is to heat. Storer, Jacob Jones 1492 29th May 1866 Storer, Jacob Jones 1493 29th May 1866 Storer, Jacob Jones 1493 29th May 1866 Storer, John 2763 26th Oct. 1866 Storer, Edward 3407 28th Dec. 1866 Storey, Thomas 907 29th March 1866 Strang, James 1183 27th April 1866 Irreagents to eliminate its impurities of those of the substances it is to heat. An apparatus and process for removing dust and spray wheel. An improved process and apparatus for obtaining metals and saleable product from ores and minerals, adapted particularly to the reduction of sulphurets. Lubricators. Improvements in or applicable to marine locomotive, stationary and other steam boilers. Storey, Thomas 907 29th March 1866 Strang, James 1183 27th April 1866 Improvements in cop tubes and in shuttle skewers.	Stoops, Nesbitt De Laney -	421	10th Feb. 1866	
STORER, JACOB JONES 1493 29th May 1866 STORER, JACOB JONES 1493 29th May 1866 An improved process and apparatus for obtaining metals and saleable product from ores and minerals, adapted particularly to the reduction of sulphurets. Lubricators. STOREY, EDWARD 3407 28th Dec. 1866 Improvements in or applicable to marine locomotive, stationary and other steam boilers. STOREY, THOMAS 907 29th March 1866 STRANG, JAMES 1183 27th April 1866 Improvements in cop tubes and in shuttle skewers.	Storer, Jacob Jones	1471	26th May 1866	Use and application of fuel, and of chemical reagents to eliminate its impurities or those of the substances it is to heat.
STOREY, THOMAS 907 29th March 1866 STRANG, JAMES 1183 27th April 1866 Storey, Louis and salesble product from ores and minerals, adapted particularly to the reduction of sulphurets. Lubricators. Lubricators. Improvements in or applicable to marine locomotive, stationary and other steam boilers. Manufacture of leather cloth. Improvements in cop tubes and in shuttle skewers.	Storer, Jacob Jones	1492	29th May 1866	An apparatus and process for removing dust and gase's from air, which they call a draft and spray wheel.
STOREY, EDWARD 8407 28th Dec. 1866 Improvements in or applicable to marine locomotive, stationary and other steam boilers. STOREY, THOMAS 907 29th March 1866 Manufacture of leather cloth. STRANG, JAMES 1183 27th April 1866 Improvements in cop tubes and in shuttle skewers.		1498	29th May 1866	An improved process and apparatus for obtaining metals and saleable products from ores and minerals, adapted particularly to the reduction of sulphurets.
STOREY, EDWARD 8407 28th Dec. 1866 Improvements in or applicable to marine locomotive, stationary and other steam boilers. STOREY, THOMAS 907 29th March 1866 Manufacture of leather cloth. STRANG, JAMES 1183 27th April 1866 Improvements in cop tubes and in shuttle skewers.	Storer, John	2763	26th Oct. 1866	Lubricators.
STRANG, JAMES 1183 27th April 1866 Improvements in cop tubes and in shuttle skewers.	STOREY, EDWARD	8407	28th Dec. 1866	Improvements in or applicable to marine, locomotive, stationary and other steamboilers.
skewers.	Storey, Thomas	907	29th March 1866	Manufacture of leather cloth.
l	Strang, James	1188	27th April 1866	Improvements in cop tubes and in shuttle skewers.
STRANG, JAMES 1928 25th July 1866 Tubes and skewers for cops.	STRANG, JAMES	1928	25th July 1866	Tubes and skewers for cops.

Name of Patentee.		Number of Patent.	Date.	Subject-matter of Patent.
STRINGER, JOHN -		210	22nd Jan. 18	6 Printing yarns.
STROUDLEY, WILLIAM	- -	1952	27th July 18	
STUART, GEORGE -		98	11th Jan. 18	6 Apparatus for drawing off and measuring liquids.
STUART, GRAHAM -		2424	21st Sept. 18	6 Breech-loading guns.
STUDLEY, JAMES	• •	8263	12th Dec. 18	6 Machinery or apparatus for combing wool or other fibrous substances.
Sturgeon, John -		848	21st March 18	Improvements in indicating and recording the distance run and direction of a ship or vessel, and in apparatus employed therein.
Sturgeon, John		1047	13th April 18	6 Engines for obtaining motive-power.
Sturgeon, John -		1292	5th May 18	6 Cupola and other furnaces.
Sturgeon, John -		1986	lst Aug. 180	Improvements in hammers and in mechanism used therewith.
Sturgeon, John -	• •	8297	15th Dec. 18	6 Improvements in hammers and in mechanism used therewith.
Sturgeon, Thomas	• •	848	21st March 18	6 Improvements in indicating and recording the distance run and direction of a ship or vessel, and in apparatus employed therein.
Sturgeon, Thomas	• •	1986	lst Aug. 18	Improvements in hammers and in mechanism used therewith.
Sturgeon, Thomas		2913	8th Nov. 18	6 Machines for drying wool, corn, grain and other substances.
Sturrock, George -	· -	916	29th March 18	Improvements in breech-loading and other fire-arms, and in loading rods to be used therewith.
Stuttle, Henry -		1482	28th May 18	6 Construction of hydraulic presses for the manufacture of sheet lead pipes, bars and window lead.
Sugg, William Thomas		2277	5th Sept. 18	6 Apparatus for regulating the supply of gas.
Sullivan, Henry		1695	26th June 18	
Sumner, William		172	19th Jan. 18	6 Machinery and apparatus employed in casting metal tubes and other articles.
Sunderland, Joseph -		1850	14th July 18	6 Preparing and spinning wool and other fibrous substances.
SUNDERLAND, WILLIAM	-	1204	28th April 18	6 Spinning machinery.
Susini, Joseph de	-	2518	28th Sept. 18	6 Means of reproducing signs, characters and other marks, in the transmission of messages and signals by electric telegraph apparatus. (Patented by William Clark.)
Susini, Joseph de		2514	28th Sept. 18	
Susini, Joseph de		2716	20th Oct. 18	6 Electric telegraph apparatus. (Patented by William Clark.)
Susini, Joseph de		3178	3rd Dec. 18	6 Apparatus for applying and regulating motive-power. (Patented by William Clark.)
Sutcliffe, Joseph	• -	400	9th Feb. 18	_ 1

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SUTHERLAND, EDWARD -	- 107	12th Jan. 1866	Obtaining fibre suitable for spinning and other uses, by the use of a plant not hitherto employed for this purpose. (Communicated by Signor Joseph Vanzina.)
SUTHERLAND, FREDERICK	- 2411	20th Sept. 1866	Umbrellas.
SUTHERLAND, HORATIO -	- 107	12th Jan. 1866	Obtaining fibre suitable for spinning and other uses, by the use of a plant not hitherto employed for this purpose. (Communicated by Signor Joseph Vanzina.)
Sutton, Charles	- 2901	7th Nov. 1866	An improved toy to be actuated by steam.
Sutton, Francis	- 101	12th Jan. 1866	Treatment of sewage and urine in order to recover the manurial constituents therefrom.
SUTTON, JOHN HENRY -	- 2893	7th Nov. 1866	Method of closing and keeping open at any distance doors and gates, in lieu of using springs, straps or other unsightly arrangements for effecting the purpose.
SUTTON, ROBERT TWISS -	- 109	12th Jan. 1866	Improvements in drying and cleaning grain and in apparatus to be used for these purposes.
Swain, Benjamin	- 828	20th March 1866	Machinery for balling wool or other fibrous materials.
Swan, Alexander -	- 1049	13th April 1866	Apparatus for evaporating or recovering lees.
Swan, Alexander •	- 2671	16th Oct. 1866	Improvements in and in apparatus for evaporating or recovering lees.
Swan, Joseph Wilson -	- 289	24th Jan. 1866	Mode of and apparatus for printing from intaglio plates.
Swan, Joseph Wilson -	- 3303	15th Dec. 1866	Treatment of gelatinous tissues of gelatine and gum, and of compounds containing such substances.
SWANN, JOHN RUSSELL -	- 1817	8th May 1866	Lime kilns or apparatus to be used in burn- ing lime.
SWANN, JOHN RUSSELL -	- 2539	3rd Oct. 1866	Safety valves.
SWEARS, HENRY FINCH -	- 3201	5th Dec. 1866	Means of communication between stations and railway trains in motion, and between passengers, guards and engine-driver.
Sweet, James Burnum	- 1120	20th April 1866	An improved mode of and means for light- ing and extinguishing street and other gas lamps and burners. (Patented by George Haseltine.)
Sweet, John Edson -	- 1448	23rd May 1866	Improvements in the moulds or matrices of stereotype plates, and in machinery for forming the same. (Patented by George Haseltine.)
SWRETING, RICHARD -	- 961	4th April 1866	Labels for trucks used for the transport of goods and merchandize on railways.
SWIFT, HENRY SPINK -	- 530	20th Feb. 1866	Machinery or apparatus for propelling ships or vessels by hydraulic pressure.
SWIFT, HENRY SPINK -	- 539	21st Feb. 1866	Construction of pumps.
SWINNOCK, WILLIAM GEORG [Edward		10th Nov. 1866	Lace fabrics. (Communicated by Auguste Pascal and Félix Varenne.)
Sylven, Thomas George	- 808	19th March 1866	Breech-loading guns.
Syme, James	- 2622	10th Oct. 1866	Breech-loading fire-arms.
Symm. Joseph	- 8806	15th Dec. 1866	Sheep and cattle racks.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Symonds, Thomas Edward -	856	22nd March 1866	Construction of ships and other vessels.
Symons, Nathaniel Augus- Ltus Tover.	38	5th Jan. 1866	Smiths' forges and furnaces for smelting and puddling iron, steel and other metals.
Symons, William John -	88	5th Jan. 1866	Smiths' forges and furnaces for smelting and puddling iron, steel and other metals.

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Taggart, Robert M°	2854	3rd Nov. 18	66 An improved pill making machine.
Tait, John	886	26th March 18	Stopping railway and other carriages.
TALABOT, JULES	1987	lst Aug. 18	66 Cutting files.
Tamin, Jean Marie Onésime	2513	28th Sept. 18	Means of reproducing signs, characters and other marks, in the transmission of measages and signals by electric telegraph apparatus. (Patented by William Clark.)
Tamin, Jean Marie Onésime	2514	28th Sept. 18	66 Electric telegraphs. (Patented by William Clark.)
Tamin, Jean Marie Onésime	2716	20th Oct. 18	Electric telegraph apparatus. (Patented by William Clark.)
Tankard, James Marsland-	1553	5th June 18	Improvements in or applicable to machiner or apparatus for spinning worsted or other fibrous substances, known as cap frames.
TANNER, GEORGE	184	20th Jan. 18	A new or improved apparatus or device fo producing theatrical or stage illusions.
Tansley, James	641	2nd March 18	66 Improvements in the construction and mounting of safes, part of which improve ments is applicable to shutters and door of buildings where security is required.
Taplby, John	230	24th Jan. 18	66 Certain improvements in machinery of apparatus to be employed in preparing cotton and other fibrous substances for spinning.
Target, Charles Albert Bagenal.	1211	28th April 18	Balancing and raising or lowering window sashes.
TARR, JOHN BLAKE	1001	7th April 18	An improved mode of and apparatus for casting railway wheels and other articles of cast steel. (Patented by Alfred Vincent Newton.)
Tarr, John Blake	8123	27th Nov. 18	Improved machinery for making cast stee railway wheels and other castings in metal (Patented by Alfred Vincent Newton.)
Tasker, John	8053	21st Nov. 18	Improvements in door mats, which improve ments are also applicable to covering for floors of passages, offices and other places.

Name of Patentee.	Number of Patent.	Date.		Subject-matter of Patent.
Tasker, John	8099	24th Nov.	1866	Self-acting machinery or apparatus for uniting together two or more strips of leather or other material to be used a machine belts, straps or bands, or for other similar purposes.
TATTERS, JAMES GRAHAM -	2849	3rd Nov.	1866	Means of inter-communication between the several parts of railway trains.
Tattersall, Édward	1217	30th April	1866	Certain improvements in carding-engines.
Tavernier, Edouard	2832	1st Nov.	1866	Means or apparatus for combing cotton an other fibres.
Tavernier, Joseph François [Amédée.		20th April	1866	Means or apparatus for combing wool an other fibres. (Patented by William Brookes.)
Tavernier, Raphael Fer- [dinand.		20th April	1866	Means or apparatus for combing wool an other fibres. (Patented by William Brookes.)
Tayler, Caleb	11	lst Jan.	1866	Manufacture of kamptulicon and simils fabrics.
TAYLOR, ELIAS	40	5th Jan.	1866	Making building bricks impervious to water or water-proof.
Taylor, Francis	2750	24th Oct.	1866	Apparatus for receiving, drying and deodo rizing human excrement.
Taylor, Frederick	3284	14th Dec.	1866	Sewing and embroidering machines.
laylor, James	337	3rd Feb.	1866	Holding details for lathes, vices and wrenche (Patented by William Mackintosh.)
Faylor, John	2367	14th Sept.	1866	Winding apparatus.
Taylor, John	3193	5th Dec.		Certain improvements in the manufactur of hats or coverings for the head, and is apparatus connected therewith.
l'aylor, John George	1181	21st April	1866	Dress fastenings and ornaments.
Taylor, Joseph	1184	27th April	1866	Increasing the expansive power of steam.
Taylor, Nathaniel Fortes- [cue.	2878	6th Nov.	1866	Means for operating on air or aëriform fluid by hydrocarbons, for purposes of illum nation.
Taylor, Peter	3342	20th Dec.	1866	An improvement in the feeding apparatus in cotton gins. (Patented by Gerard Brown Finch.)
TAYLOR, THOMAS BURTON -	2474	25th Sept.	1866	Pumps for ships.
Taylor, William	2136	20th Aug.		Sewing machines.
Taylor, William	8109	26th Nov.		Treatment and spinning of jute, hemifiax and other fibrous substances, and the machinery or apparatus employed therein
TAYLOR, WILLIAM ROWLAND	985	5th April	1866	Improvements in the treatment of grain and raw spirit, and in the apparatus en ployed therein.
Telescheff, Nicolas De -	267	27th Jan.	1866	Mode of and apparatus for compressing a or aëriform fluids, for the generation of motive-power and other purposes. (Patented by Marc Antoine Franço Mennons.)
Tellier, Charles	615	28th Feb.	1866	Improvements and new applications in the manufacture of beer and alcoholic liquid (Patented by Hector Auguste Dufrené.)
Tellier, Charles	2204	27th Aug.	1866	Improvements in the manufacture of bee and other alcoholic liquids, and in the apparatus employed therefor. (Patented by Hector Auguste Dufrené.)

Name of Patentee.	Number of · Patent.	Date.		Subject-matter of Patent.
TERRY, ALEXANDER ROBERT -	1686	25th June	1866	A new or improved coupling for railway carriages, trucks and waggons. (Patented by Edward Griffith Brewer.)
TESTON, CHARLES	1288	5th May	1866	Machinery or apparatus for washing wool. (Patented by John Henry Johnson.)
THEALL, HORACE	2082	l4th Aug.	1866	An improved mode of fastening boiler tubes. (Patented by Alfred Vincent Newton.)
THELCHAN, Louis	112	13th Jan.	1866	An improved machine for pressing bricks. (Patented by Hector Auguste Dufrené.)
THEVENET, JUSTIN	812	31st Jan.	1866	An improved hydraulic steam hammer. (Patented by Hector Auguste Dufrené.)
THIBAULT, JOSEPH EUGENE -	2498	27th Sept.	1866	Improved means or appliances for prevent- ing ships or vessels from foundering, by imparting additional buoyancy thereto.
THIERCELIN, EMILE ELIE -	2921	9th Nov.	1866	Fastenings or couplings. (Patented by John Henry Johnson.)
Thierry, Jean Baptiste, jun ⁷ .	2339	11th Sept.	1866	Apparatus applicable to marine steam- boilers. (Patented by George Tomlinson Bougfield.)
THOMAS, DAVID	2978	13th Nov.	1866	Picks or mandrils such as are used for cutting coal and other minerals.
Thomas, Evan	3045	20th Nov.	1866	Safety lamps.
Thomas, James	585	26th Feb.	1866	Gas-meter indexes.
Thomas, John	1232	lst May	1866	Improvements in reverberatory, blast and other furnaces for smelting ores, and in the means of extracting the precious metals therefrom.
Thomas, John	1408	17th May	1866	Means of treating scoria or slag of copper ores, iron pyrites, or scoria from other ores containing iron, and of reducing titanic iron ore for the purpose of extracting the iron therefrom.
THOMAS, JOHN	2947	10th Nov.	1866	Improvements in the treatment of scoria or slag of copper ores, or scoria from other ores containing iron, in order to extract the iron therefrom, and in refining pig or cast iron to improve the quality of wrought or cast iron.
Thomas, John	2948	10th Nov.	1866	Refining pig or cast iron for puddling into wrought or malleable iron.
Thomas, John	2957	12th Nov.	1866	Improvements in the treatment of titanife- rous iron ores and in extracting iron therefrom, also for utilising the scoria produced.
Thomas, Nicholas	8105	26th Nov.	1866	Improvements in the modes of cutting metal tubes or pipes, and in the machinery or tools employed for these and other analogous purposes. (Patented by William Richard Middlemore Thomson.)
THOMAS, WILLIAM, the younger	196	20th Jan.	1866	Machinery for making moulds for casting metals.
Thompson, George Nicholas [William Tuam.	536	21st Feb.	1866	Stop cocks.
THOMPSON, JACOB BAYNES -	1195	27th April	1866	rosion.
Тномрвом, Јонм	2892	18th Sept.	1866	Machinery for turning or cutting and polishing screw nuts and other articles.

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Name of Patentee.		Number of Patent.	Date.	Subject-matter of Patent.
Thompson, John Calvin	•	110	13th Jan. 1866	Means or apparatus employed in the com- bustion of gas in gas stoves and burners employed in heating and cooking.
THOMPSON, JOSEPH -	-	835	21st March 1866	An improvement in bread plates or dishes.
Thompson, Nathan -	-	8	lst Jan. 1866	Improvements in the manufacture of stop- pers for bottles and other articles, and in machinery employed in such manufacture.
Thompson, Nathan -	-	654	3rd March 1866	Tools for dividing wood into cylinders.
THOMPSON, NATHAN -	-	. 802	17th March 1866	Manufacture of boxes.
THOMPSON, ROBERT -	-	1152	24th April 1866	Machinery for veneering mouldings or other surfaces.
Thompson, Samuel -	-	1154	24th April 1866	Construction of piano-fortes.
Thompson, Walkden •	-	1841	13th July 1866	Mills for grinding corn and other hard substances.
THOMPSON, WILLIAM -	-	1817	11th July 1866	Apparatus for filling and corking bottles.
THOMPSON, WILLIAM -	-	1861	17th July 1866	Improvements in machinery or apparatus for mixing and repacking tea, also applicable to the mixing of other granular substances.
Thomson, David		1200	28th April 1866	Steam-boilers.
Thomson, David	•	1475	26th May 1866	Machinery used in raising and forcing water and other fluids.
Thomson, James	-	2908	8th Nov. 1866	Gas stoves for heating and cooking.
THOMSON, ROBERT WILLIA	M -	1006	9th April 1866	Improvements in steam gauges and appli- cable to other pressure indicators.
THOMSON, WILLIAM -	-	698	7th March 1866	Manufacture of railway crossings.
Thomson, William -	-	1782	29th June 1866	Apparatus for actuating the points or switches of railways.
Thomson, William -	-	8418	28th Dec. 1866	Apparatus for actuating the points or switches of railways.
THOMSON, WILLIAM RICHA [MIDDLEMO		8105	26th Nov. 1866	Improvements in the modes of cutting metal tubes or pipes, and in the machinery or tools employed for these and other analogous purposes. (Partly communicated by Nicholas Thomas and Thomas Somerville.)
Thomson, William Spari	K8 -	1860	17th July 1866	Fastenings for corsets, stays and other articles of dress. (Patented by Edward Drucker.)
THOMSON, WILLIAM SPAR	K8 -	3004	16th Nov. 1866	An improved combined punching and eyelet machine. (Patented by Edward Drucker.)
THORNTON, ALBERT -	-	1589	11th June 1866	Means or apparatus for heating the feed water of steam-boilers, and for maintain- ing free circulation between the upper and lower parts of the water in boilers.
THORNTON, JOHN	-	1659	21st June 1866	Improvements in the construction of life boats and in sails for the same, for the purpose of saving life at sea.
THORNTON, THOMAS -	-	1347	10th May 1866	Improvements in raising and lowering ships' boats and other weights, and in the apparatus used therefor. (Communicated by Digby Murray.)
Тновче. Јонм	-	2795	30th Oct. 1866	Certain improvements in the manufacture of "oil baizes," "stair-baizes" and "oil floor cloths" or other varnished or japanned fabrics, and in machinery or apparatus employed therein.

Name of Patentee.	Number	Date.	Subject-matter of Patent,
	Patent.	240.	Subject-matter of Fatent.
THRING, GODFREY	2487	22nd Sept. 1866	Construction of stiles used in public and private pathways.
THURGAR, AUGUSTUS HENRY -	2475	25th Sept. 1866	Manufacture of overshoes.
Thurston, Robert Henry -	261	26th Jan. 1866	Lamps for burning magnesium. (Patented by George Tomlinson Bousfield.)
Tibbals, Daniel Clark -	1069	16th April 1866	Power looms. (Patented by Alfred Vincent Newton.)
Tippin, Charles, jun ^e	2782	27th Oct. 1866	Construction of perambulators and other similar carriages.
Tilghman, Benjamin Chew	2924	9th Nov. 1866	Improvements in treating vegetable sub- stances chiefly applicable to the manufac- ture of paper pulp and fibres. (Patented by William Edward Newton.)
Timmins, Henry	8129	28th Nov. 1866	Improvements in furniture springs and in machinery to be employed in the manufacture of furniture springs.
Tindall, Samuel	8206	5th Dec. 1866	Improvements in packing for the piston rods of steam-engines, and of pumps for raising or forcing hot fluids, acids and other corrosive matters, which improvements are also applicable to the packing of the stuffing boxes or glands of the spindles or axes of cocks or valves used for the passage of steam, hot fluids or acids.
TISSERAND, PHILLIPE	2583	8th Oct. 1866	An improved tilt hammer. (Patented by William Edward Gedge.)
TITTERINGTON, THOMAS -	333 0	18th Dec. 1866	Apparatus and material for ornamental painting, graining, marbling and such like purposes.
Titus, Henry	1689	25th June 1866	An improvement in wood screws. (Patented by Clinton Edgcumbe Brooman.)
Tivoli, Vital de	1294	7th May 1866	A new form of partial or total baths for man or animals. (Communicated by Major General Angelini.)
Tivoli, Vital de	1295	7th May 1866	A new system of application of pads of india-rubber or other elastic materials. (Communicated by Major General Angelini.)
Tobin, Thomas William -	1180	27th April 1866	Apparatus for effecting a solution of lime for the purpose of softening hard water.
Todd, Brereton	121	13th Jan. 1866	Manufacture of arsenic.
Todd, Peter	465	14th Feb. 1866	Certain improvements in looms for weaving.
Tolhausen, Frederick	48	6th Jan. 1866	Locks. (Communicated by Frederic Rudolph Voll- schwitz, John James Schlaepfer and Charles Frederic Rauchfuss.)
Tolhausen, Frederick -	1876	18th July 1866	Sewing and button hole machines. (Communicated by Emil Cajar and Charles Sichel.)
Tolhausen, Frederick -	2531	2nd Oct. 1866	An improved manometrical sounding apparatus. (Communicated by Ernest Dubois.)
Tolhurst, George Wash-	8381	1	Boots and shoes. (Patented by William Clark.)
Tolson, James	3250	10th Dec. 1866	Machinery or apparatus for twisting or doubling yarns or threads of wool or other fibrous substances.

Name of Patentee. Number Patent. Date. Subject-master of Fatent.	Tombs, James 1427 21st May 1866 Manufacture of metallic between other articles of like manufacture. Tomlin, John 3126 27th Nov. 1866 The manufacture of gas and the of fuel. Tomlinson, Edward 1898 21st July 1866 Ornamenting, printing, cutting facturing articles from wood materials. Tomlinson, James 480 12th Feb. 1866 Machinery for hackling and op	dsteads and ture. e preparation and manu- d and other
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Tonks, Edmund 2852 3rd Nov. 1866 Call-bells.	Tonks, Edmund 2852 3rd Nov. 1866 Call-bells.	

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Tordery, Charles Alfred -	2057	9th Aug. 1866	Construction of buckles or fastenings for braces and other articles. (Patented by William Edward Gedge.)
Tossell, Michael	2307	8th Sept. 1866	A new or improved chimney cowl or venti- lator.
Тотн, Јозерн	1720	27th June 1866	Apparatus for preventing incrustation in steam-boilers. (Patented by Baldwin Fulford Weatherdon.)
Tousbaint, Joseph	3388	24th Dec. 1866	Manufacture of cement.
Toward, John	3200	5th Dec. 1866	Machinery for the manufacture of bricks.
Tower, Levi Lincoln	1494	29th May 1866	Mode of and means for regulating and registering the tension of pianoforte strings. (Patented by George Haseltine.)
Tower, Levi Lincoln	3184	28th Nov. 1866	Mode of and means for regulating and registering the tension of pianoforte strings. (Patented by George Haseltine.)
Towers, Joseph Robinson -	1243	2nd May 1866	An improved construction of pocket for male and female attire.
Towers, William Henry -	83	4th Jan. 1866	An improved method or process of curing and tanning hides or skins.
Townsend, John	448	93th Feb. 1866	Improvements in or applicable to machinery or apparatus for spinning and doubling fibrous substances, parts of which im- provements are also applicable to other purposes.
Townsend, Joseph	386	8th Feb. 1866	Improvements in preparing size or stiffen- ing, and in applying the same to textile materials or fabrics.
TRACOL-FAYE, LUCIEN	2981	14th Nov. 1866	A mode of treating the bark of the mulberry tree for the production of a new fibrous substance or vegetable silk. (Patented by Henri Adrien Bonneville.)
Tranchant, Charles Achille	871	7th Feb. 1866	Means and apparatus for regulating the supply of steam to stationary, locomotive and marine steam-engines. (Patented by Charles Denton Abel.)
TRANTER, WILLIAM	2113	17th Aug. 1866	Fire-arms.
TREADWIN, CHARLOTTE ELI- [ZABETH.	589	26th Feb. 1866	Manufacture of certain kinds of lace.
TREGASKIS, THOMAS PHILIP -	1018	9th April 1866	An improved method of clearing, deepening or enlarging rivers or creeks.
TRENT, JOSEPH	607	27th Feb. 1866	An even balanced tubular slide valve for steam or other engines.
TROTMAN, ADOLPHUS	711	8th March 1866	Hair pins.
TROTMAN, ADOLPHUS	867	23rd March 1866	Improvements in hair and other pins, and in cases for containing the same.
Trotman, Henry	1890	21st July 1866	A feed box for the prevention of injury to marine boilers with surface condensing engines.
Trotman, John	711	8th March 1866	Hair pins.
TROTMAN, JOHN	867	23rd March 1866	Improvements in hair and other pins, and in cases for containing the same.
TROTTIER, JULES	1722	28th June 1866	Manufacture of metal boxes, tins or cases. (Patented by William Edward Gedge.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
TRUEFITT, HENRY PAUL	- 8154	30th Nov. 1866	Manufacture of hair, nail, tooth and flesh brushes.
TRUSCOTT, HENRY DA	VID 1725	28th June 1866	Construction of general electric telegraph machines and the mode of working them.
Truss, Thomas Seaville	- 2983	14th Nov. 1866	Improvements in the construction of pipes and in the mode of joining the same, for the transmission of gas, water, steam, air and other fluids.
Tubino, Francesco -	- 2786	29th Oct. 1866	Improvements in lockets, which improvements may also be applied to brooches, bracelets and other articles of jewellery and dress.
Turski, Bertholde -	- 2777	27th Oct. 1866	Manufacture of hats of all kinds.
TUNSTILL, WILLIAM -	- 2869	14th Sept. 1866	An improvement in braiding machines and warp regulators.
Turnbull, John	- 1406	17th May 1866	Condensing apparatus. (Patented by Philip Vandirbyl.)
TURNER, ARCHIBALD -	- 1103	19th April 1866	Improved machinery for warping or pre- paring warps for weaving.
TURNER, ARCHIBALD -	- 2772	26th Oct. 1866	Improved taking up apparatus applicable to machinery for the manufacture of elastic fabrics.
Turner, Charles -	- 79	10th Jan. 1866	Apparatus for brushing the hair of man and animals.
TURNER, CHARLES -	- 939	2nd April 1866	Apparatus for rotary brushing and rubbing.
Turner, Frederick Will	JAM 8220	6th Dec. 1866	Reaping and mowing machines.
Turner, Henry	- 2458	25th Sept. 1866	Apparatus for consuming smoke and economizing fuel.
Turner, James	- 2047	9th Aug. 1866	Wet gas-meters.
Turner, James Alfred	- 2090	15th Aug. 1866	Woven fabrics.
Turner, John	- 1835	12th July 1866	Machinery for making covered twist and cord. (Patented by William Edward Newton.)
Turner, John	- 2056	9th Aug. 1866	Machinery for manufacturing envelopes, partly also applicable to other purposes. (Patented by Alfred Vincent Newton.)
Turner, Joseph Brooke	- 8069	22nd Nov. 1866	Machinery or apparatus for twisting or doubling yarns or threads of wool or other fibrous substances.
Turner, Luke	- 8151	30th Nov. 1866	Machinery for the manufacture of elastic fabrics.
Turner, Thomas, jun -	- 2227	29th Aug. 1866	An improved cartridge or cartridge case extractor for breech-loading guns.
TURNER, WILLIAM ALLEN	71	9th Jan. 1866	Machinery or apparatus worked by water for raising, lifting, lowering and drawing goods of every description.
Turney, Edward	- 233	24th Jan. 1866	Preparing and treating hides and skins in the manufacture of leather.
Turney, John	- 233	24th Jan. 1866	Preparing and treating hides and skins in the manufacture of leather.
TURNLEY, RICHARD -	- 8875	22nd Dec. 1866	Water tuyeres.
Turton, George	- 1669	22nd June 1866	A new or improved rotary engine.
TURTON, SAMUEL	- 1535	2nd June 1866	Certain improvements in apparatus appli-
ICRION, DAMCEL		1	cable to steam-boilers or generators.
TUTTLE, EBENEZER -	- 1099	19th April 18 66	·

Name of Patentee.		Num ber of Patent.	Date.		Subject-matter of Patent.
TWEDDELL, RALPH HART	•	2792	29th Oct.	1866	Improvements in hydraulic presses and apparatus connected therewith for bending metals, part of which is applicable for other purposes.
Twibill, Joseph	•	2378	15th Sept.	1866	Improvements in steam generators or boilers, water heaters and apparatus con- nected therewith.
Tyerman, Frederick -	-	3085	23rd Nov.	1866	Shades or protectors for shielding the eyes from the glare of strong light.
TYERMAN, HENRY	-	1764	3rd July	1866	Reaping and mowing machines.
Tyler, Charles Newell	-	116	13th Jan.	1866	Lamps for burning kerosene or volatile oils or other hydro-carbon fluids.

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Underwood, George	•	-	2560	4th Oct.	1866	Improvements applicable to boiling, steaming and cooking apparatus.
Unwin, William -	, -	-	464	14th Feb.	1866	An improved method in the rolling of coach spring, spindle and sheet steel.
Иртом, Јонм	-	-	207	22nd Jan.	1866	Bolts for doors and other purposes.
Upton, John	•	-	254	25th Jan.	1866	Window fastenings.
UPTON, WILLIAM -	-	-	1756	2nd July	1866	Apparatus for roasting coffee.
Upward, Alfred -	-	- !	1162	25th April	1866	Manufacture of gas.
Uren, Edward Wills	-	-	2705	19th Oct.	1866	Arrangements of machinery for dressing granite and all other kind of stone.
URQUHART, DAVID -	•	-	1252	2nd May	1866	Construction of furnaces or fireplaces for economizing the fuel employed for warming, heating and ventilating.

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Vail, Thomas Jefferson -	2187	25th Aug.	1866	Breech-loading fire-arms. (Patented by William Edward Newton.)
VALENTIN, WILLIAM GEORGE	2568	5th Oct.	1866	Manufacture of steel.
VALENTIN, WILLIAM GEORGE	2612	9th Oct.	1866	Improvements in the melting and casting of steel, and in the apparatus employed therein.
Valentin, William George	2614	9th Oct.	1866	Improvements in the manufacture of malle- able iron and steel, and in the apparatus employed in such manufacture.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
VALENTIN, WILLIAM GEORGE	2616	9th Oct. 1866	Improvements in the manufacture of iron and steel, and in the apparatus employed therein.
Van Bruyssel, Ernest -	2285	5th Sept. 1866	Improvements in the construction of electric clocks and in the means employed in working the same. (Patented by Alfred Vincent Newton.)
VAN DERBURGH, GEORGE EDWARD.	2470	25th Sept. 1866	Composition and production of artificial stone, cements and other compositions.
VAN GIESON, AMZI HANCEN -	926	31st March 1866	Leather splitting machines. (Patented by Edward Thomas Hughes.)
VAN SICKLER, REUBEN MAR-	8814	17th Dec. 1866	An improved construction of elevator. (Patented by Alfred Vincent Newton.)
VAN WINKLE, JACOB MARTIN	2345	12th Sept. 1866	An improved mode of and means for uniting and securing the ends of bands or hoops designed for baling cotton, wool and other substances.
VANDIRBYL, PHILIP	1406	17th May 1866	Condensing apparatus. (Communicated by John Turnbull.)
VANDROY, VICTOR	3199	5th Dec. 1866	Cast-iron sash windows to be adapted to purlin tile or slate roofing.
Vanzina, Joseph	107	12th Jan. 1866	Obtaining fibre suitable for spinning and other uses, by the use of a plant not hitherto employed for this purpose. (Patented by Edward Sutherland and Horatio Sutherland.)
Varenne, Félix	2220	28th Aug. 1866	Improvements in perfecting or ornamenting lace and other like fabrics, and also in imitations of the same. (Patented by William Clark.)
Varenne, Félix	29 4 5	10th Nov. 1866	Lace fabrics. (Patented by William George Edward Swinnock.)
VARLEY, CORNELIUS	165	18th Jan. 1866	Improvements in electric telegraph apparatus, parts of the invention being applicable to other purposes.
Varley, Cornelius	1867	17th July 1866	Electric telegraph apparatus.
Varley, Cornelius	8894	24th Dec. 1866	Means and apparatus for generating elec- tricity.
VARLEY, CROMWELL FLEET- [WOOD.	2363	14th Sept. 1866	Apparatus for obtaining latitude and longitude.
VARLEY, FREDERICK HENRY -	237	24th Jan. 1866	Electric telegraph apparatus.
Varley, Frederick Henry -	932	31st March 1866	Electric telegraphs.
VARLEY, JAMES	8260	11th Dec. 1866	Improved machinery for assorting silk and other fibres.
VARLEY, JOHN	764	14th March 1866	Improvements in drill and other braces, which improvements are also applicable to drilling machines and other apparatus for boring holes.
Varley, John	2127	18th Aug. 1866	Steam-engines.
Varley, John	2802	30th Oct. 1866	Apparatus for supplying or feeding water to steam boilers, which apparatus measures and regulates the water supplied, and is also applicable for other purposes.
Varley, Samuel Alfred -	165	18th Jan. 1866	Improvements in electric telegraph apparatus, parts of the invention being applicable to other purposes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Varley, Samuel Alfred -	. 287	24th Jan. 1866	Electric telegraph apparatus.
VARLEY, SAMUEL ALPRED -	932	31st March 1866	Electric telegraphs.
VARLEY, SAMUEL ALFRED -	' 966 	5th April 1866	Improvements in train inter-communication, parts of the invention being applicable to other purposes.
VARLEY, SAMUEL ALFRED -	1867	17th July 1866	Electric telegraph apparatus.
VARLEY, SAMUEL ALPRED -	8394	24th Dec. 1866	Means and apparatus for generating elec- tricity.
Vaughan, Aaron Calhoun -	2828	lst Nov. 1866	Lamps. (Patented by John Henry Johnson.)
Vaughan, Edward Prime- [Rose Howard.	984	2nd April 1866	Methods of solidifying the juice or sap of the bullet tree otherwise known as balata juice, and the juices or saps of trees yielding similar or analogous elastic products. (Communicated by Sydney Rupert Pontifex, F.C.S.)
VAUGHAN, EDWARD PRIME- [ROSE HOWARD.	1541	2nd June 1866	Construction of reflectors. (Communicated by William Marot Marshall.)
VAUGHAN, EDWARD PRIME- [ROSE HOWARD.	1924	24th July 1866	An improved method of and apparatus for preventing incrustation in steam-boilers. (Communicated by Robert Breckenridge Baker and Charles James Adolphus Dick.)
Vaughan, Reginald Samuel [Mordaunt.	2284	5th Sept. 1866	Improved apparatus for cleaning and polishing boots, shoes and knives.
Vaughton, Oliver	2992	15th Nov. 1866	Certain improvements in the construction of articles of jewellery.
Vaughton, Thomas	2992	15th Nov. 1866	Certain improvements in the construction of articles of jewellery.
Vautherin, Jules	3434	29th Dec. 1866	Fixing rails to the sleepers or permanent way of railways. (Patented by William Clark.)
VAVASSEUR, JOSIAH	92	11th Jan. 1866	Projectiles for breech-loading rifles.
VAVASSEUR, JOSIAH	1935	25th July 1866	Compressors or apparatus for receiving and absorbing the recoil of guns and other ordnance.
VEDOVA, FREDERICK	2753	25th Oct. 1866	Certain improvements in cotton gins. (Patented by John Lacey Davies.)
VEERKAMP, FLORENCE LUCAS	945	3rd April 1866	Braiding and weaving machines. (Patented by George Davies.)
Velten, Eugene	2241	30th Aug. 1866	An improved process for treating and pre- serving beer and other fermented liquors. (Patented by Henry Edward Newton.)
Vérel, William Aristides -	668	5th March 1866	An improved apparatus for distilling petro- leum and the oils obtained from coal shale and other like substances.
Vergeat-Meunier Cathe-	1024	10th April 1866	Crinolines. (Patented by William Clark.)
Vergniais, Jean Louis	2931	10th Nov. 1866	An improved apparatus to excavate, deepen, scour and remove the mud, slime, sand, earth, shoal, gravel, stones, shingle or such like bodies, out of harbours, havens, docks, creeks, guts, bars, channels, watercourses, sluices, basins, lakes, ponds, marshes and similar places. (Patented by Henri Adrien Bonseville.)

/erj Al	PHABET	ICAL INDEX OF	FAIENIEES	[VII
Name of Patentee.	Number of Patent.	Pate.	Subject-matter of Patent.	
VERNEY, LOUIS THEODORE -	8331	19th Dec. 1866	Cylindrical printing presses. (Patented by George Davies.)	
Vero, James	8008	16th Nov. 1866	Manufacture of boots and shoes.	
Vero, Joseph	455	13th Feb. 1866	Machinery for felting the bodies of had other coverings for the head.	is and
Vescovali, Angrlo	2015	4th Áug. 1866	Mode of and apparatus for increasing adhesion of locomotive engine when their rails.	g the els to
VICARS, THOMAS, the elder -	2605	9th Oct. 1866	Improvements in and applicable to class of furnace fire-grates on whice fuel is made to travel.	
VICARS, THOMAS, the younger-	2605	9th Oct. 1866	Improvements in and applicable to class of furnace fire-grates on whice fuel is made to travel.	
Vickerman, Charles	8069	22nd Nov. 1866	Machinery or apparatus for twisting doubling yarns or threads of woother fibrous substances.	
Vickers, Thomas Edward -	30	4th Jan. 1866	Machinery for rolling hoops or tyn wheels or other purposes.	es for
Vickess, Samuel	2255	3rd Sept. 1866	An improved method of and apparate facilitating the moving of moulds, as draining of syrup from the sugar solution and sugar in the said moulds, in the facture of sugar.	nd the
VIDIL, EDOUARD	2844	2nd Nov. 1866	Manufacture of gloves. (Patented by Richard Porter, jun.)	
Vienoff, Charles Jullien -	978	5th April 1866	Steering telegraphs or steering indicato tell-tales.	rs and
Viellefon, Bernard	242	24th Jan. 1866	Improvements in the manufacture of ficial flowers, feathers and other ar and in apparatus used for the same. (Patented by William Clark.)	
Vigoureux, Stanislas	1259	3rd May 1866	Manufacture of yarns or threads and v fabrics from wool or wool combined other materials. (Patented by George Tomlinson Bou	l with
Vigoureux, Stanislas	1527	31st May 1866	Preparing fibrous materials for spinnin weaving. (Patented by George Tomlinson Bon	_
VINCENT, GEORGE JACKSON -	1421	19th May 1866	An improved method of securing or he flat bottomed or bridge rails.	olding
VINCENT, JOHN PERICLES -	608	27th Feb. 1866	An improved process of and apparat distilling petroleum and other liquid stances. (Patented by William Edward New	d sub-
VINCENT, JOHN PERICLES -	616	28th Feb. 1866	Process of and apparatus for the distil of tar and other substances. (Patented by William Edward News	lation
VINCENT, WILLIAM	2318	10th Sept. 1866	Apparatus for lighting the floats of lig theatres and other places.	hts in
VITIE, JOHN MC	1869	18th July 1866	Certain improvements in mules for spi	nning.
VITOUX, CHARLES	2587	8th Oct. 1866	An improved mode of treating stale and biscuits, with a view to rest their freshness. (Patented by John Henry Johnson.)	bread toring

Name of Patentee.	Number of Patent.	Dete.	Subject-matter of Patent.
Voelckel-Boell	3322	18th Dec. 1866	Machinery or apparatus for carding wool. (Patented by William Edward Gedge.)
Vogel, Wilhelm	415	10th Feb. 1866	Manufacture of woollen damasks. (Patented by Ernest Seyd.)
Volkmann, Frederick -	8175	3rd Dec. 1866	Ploughs.
Vollschwitz, Frederic Ru- [DOLPH.	48	6th Jan. 1866	Locks. (Patented by Frederick Tolhausen.)
Von der Poppenburg, Johann	. 2580	6th Oct. 1866	Improvements in breech-loading fire-arms, and in cartridges for breech-loading fire-arms.
Von der Poppenburg, Johann	3382	22nd Dec. 1866	Breech-loading fire-arms.
Von Floss, Baron Von [Roesgen.	2621	10th Oct. 1866	Apparatus for preventing injury to persons in railway trains. (Patented by William Manby.)
Von Lersnee-Ebersburg, [Elise.	3142	29th Nov. 1866	A concentrated milk for feeding infants and invalids. (Communicated by Baron Justus Von Liebig.)
Von Liebig, Baron Justus	8149	29th Nov. 1866	A concentrated milk for feeding infants and invalids. (Patented by Elise Von Lersner-Ebersburg.)
Von Loewis, Baron Woldr- [mar.	1148	23rd April 1866	An improved machine or apparatus for rippling or seeding flax. (Patented by Charles Denton Abel.)
Von Loewis, Baron Wolde- [mar.	1149	23rd April 1866	Machinery or apparatus for breaking and scutching flax and hemp. (Patented by Charles Denton Abel.)
Von Loewis, Baron Wolde- [mar.	3444	31st Dec. 1866	Machinery or apparatus for rippling or seeding flax. (Patented by Charles Denton Abel.)
Von Rathen, Anthony Ber- [nhard, Baron.	1999	21st July 1866	A new or improved mode of constructing a motive-power wheel, whereby to obtain permanent motion, by the application of compressed air or any other elastic fluid.
Von Rathen, Anthony Ber- [nhard, Baron.	2877	15th Sept. 1866	A new or improved compressed air engine, combined with a new mode and appropriate construction of the engine for preventing the escape of air.
Vors, Marie Pierre Ernest	948	2nd April 1866	An improved instrument for cleaning pipes used in smoking.
Voss, Wilhelm Heinrich [Christian.	1461	25th May 1866	Rotary steam and hydraulic engines.
Vuldy, Jean Baptiste -	757	13th March 1866	Steam-boiler and other furnaces.

Name of Patentee.	Number of Patent.	Date.		Subject-matter of Patent.
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WADDELL, CHARLES JAMES -	1113	20th April	1866	Valves for steam and other fluids.
WADDELL, CHARLES JAMES -	2933	10th Nov.	1866	Carding-engines.
Waddell, Charles James -	3286	8th Dec.	1866	Machines driven by human, animal or other power, having a reciprocating motion, as gins, mowing and reaping machines, reci- procating saws, and others of that class.
WADDELL, PHILIP EDWARD -	255	25th Jan.	1866	Certain new or improved means whereby passengers may signal or communicate with the guards and engine drivers of railway trains, and also with the occupants of the adjoining and other carriages form- ing railway trains.
WADDINGTON, FREDERIC -	1296	7th May	1866	An improved machine for cleaning and pre- paring cotton and other woven fabrics.
Waddington, Frederic -	3168	3rd Dec.	1866	An improved machine for doubling slivers of cards, and forming laps of cross layers for second carding of wool, cotton and other fibrous substances.
Wadsworth, James -	1502	29th May	1866	Improved methods of rendering the soles o bottoms and heels of boots and shoe more durable.
Wadsworth, James	3187	29th Nov.	1866	Improved methods of rendering the sole and heels of boots, shoes and clogs, mor durable, and for improved modes of con structing the articles to be used for tha purpose, and also for improved method of fastening moveable heels of boots and shoes.
Wagener, Godefroi Augusti [Guillaume.		31st Oct.	1866	Lamp glasses or chimneys. (Patented by William Clark.)
WAGENER, JOHN	2778	26th Oct.	1866	Sugar refining.
WAHAB, CHARLES JAMES -	3055	21st Nov.	1866	Purifying polluted water.
WAHAB, CHARLES JAMES -	3380	22nd Dec.	1866	Apparatus for filtering or straining liquids and for washing and wringing cloth, rage and other similar textile and fibrous substances.
Wailey, Charles William -	2535	3rd Oct.	1866	An improved tie to he used in fastenin bales of cotton and all merchandize to be packed and tied into bales. (Patented by Moses Paul Robertson.)
Wain, John	2941	10th Nov.	1866	Machines for spinning and doubling cotto and other fibrous materials.
Wainwright, William, junf	2658	13th Oct.	1866	Improvements in the manufacture of car dles and in moulds employed in suc manufacture.
Waldenström, Eric Hugo -		13th June		Certain improvements in carding-engines.
WALKER, ANDREW BARCLAY	2416	20th Sept.		Improvements in brewing, malting, distilling and apparatus employed therein, parts which are applicable for drying grain other goods.
WALKER, BENJAMIN -	211	22nd Jan.		Travelling cranes.
WALKER, CHARLES VINCENT	347	5th Feb.	1866	Electric intercommunication in railwatrains.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Walker, Edmund	42	5th Jan. 1866	Windlasses.
Walker, Frank Emsdorpp -	981	5th April 1866	Breech-loading fire-arms.
Walker, George James -	2414	20th Sept. 1866	An improved carriage break applicable to common roads.
Walker, John	401	9th Feb. 1866	Certain improvements in looms for weaving.
Walker, John	548	22nd Feb. 1866	Improvements in the construction of vessels of war, forts and batteries, and in mount- ing and working guns therein.
Walker, John	1273	4th May 1866	Compressing cotton or other light materials into trucks or wagons for transit upon rail- ways or other roads.
Walker, Robert	643	3rd March 1866	Apparatus for calendering, mangling or finishing.
WALKER, ROBERT LOUDON -	1712	27th June 1866	Apparatus for making bricks. (Patented by William Holborne Fyfe.)
WALKER, THOMAS	2870	6th Nov. 1866	Construction of electric telegraph cables, lines and transmitting instruments connected therewith.
Walker, Thomas	3346	20th Dec. 1866	Apparatus for taking soundings.
Walker, Thomas	3404	28th Dec. 1866	Improvements in apparatus connected with steam-boilers, for regulating the evapora- ting power thereof and to obtain greater safety in their use.
Walker, Thomas Ferdinand	3346	20th Dec. 1866	Apparatus for taking soundings.
Walker, Thomas Ferdinand	3404	28th Dec. 1866	Improvements in apparatus connected with steam-boilers, for regulating the evapora- ting power thereof and to obtain greater safety in their use.
Walker, William	1814	lith July 1866	Improvements in and apparatus for dressing or preparing for spinning hemp, flax, jute, manilla-hemp and other fibrous materials, and for the conversion of ropes and other cordage and textile fabrics into oakum, tow, and paper stuff, dressing and cleaning "waste," tow, wool, hair and other like waste fibres.
Walker, William Glassford	1827	12th July 1866	A certain improved method of producing illuminating gas.
Wall, Edward	2383	17th Sept. 1866	An improved elastic waist for boots, shoes, slippers, clogs and sandals.
Wallwork, Thomas	73 0	10th March 1866	Certain improvements in machinery or apparatus for computing or reckoning quantities and amounts.
Walsh, John Henry	519	20th Feb. 1866	Improvements in breech-loading guns and rifles, and in cartridges to be used therewith.
Walsh, William John	102	12th Jan. 1866	Cocks, taps and valves.
WALTON, DAVID	2824	10th Sept. 1866	Improved machinery for twisting into bands, cotton, linen, woollen, silk, hemp or wire.
Walton, Nicholas	1423	19th May 1866	Machinery or apparatus for soaping, washing, fulling, milling, wringing, mangling, and ironing clothes and fabrics.
Wanklyn, James Alpred -	2083	14th Aug. 1866	Production of green coloring matters for dyeing and printing textile fabrics and yarns.
Wanklyn, James Alfred -	2278	4th Sept. 1866	Extraction of iodine and bromine from kelp.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Wanklyn, James Alfred -	2791	29th Oct. 1866	Preparation of iodide of ethyl and of other organic iodides.
Wann, Samuel	1574	7th June 1866	(Patented by John Henry Johnson.) Drilling machines.
WANSBROUGH, ALFRED COL-	2445	22nd Sept. 1866	(Patented by William Edward Newton.) Manufacture of paper.
[MER. WAPPENSTEIN, RUDOLPH -	2150	22nd Aug. 1866	An improved carriage for railways and over- head railways, by the use of which turn- tables are dispensed with.
Warburton, John	335	3rd Feb. 1866	Mules for spinning and doubling.
WARBURTON, PETER	335	3rd Feb. 1866	Mules for spinning and doubling.
WARBURTON, WILLIAM	754	13th March 1866	Doors or covers of safes, strong rooms and other receptacles of property, and parts surrounding such doors or covers.
WARD, DANIEL	8054	21st Nov. 1866	Volute springs. (Patented by George Haseltine.)
Ward, Joseph	1830	12th July 1866	Machinery or apparatus for facilitating the adjustment and testing the working parts of locomotive engines.
Ward, Joseph Edwin	2789	29th Oct. 1866	Machinery for the manufacture of hats or coverings for the head.
Ward, Peter	484	15th Feb. 1866	Preparing materials for preventing and re- moving incrustation in steam-boilers, for lubricating machinery and for scouring cloth and other substances.
WARD, WILLIAM MAUNDER -	1634	16th June 1866	Machinery for the manufacture of fishing and other nets.
WARDLAW, THOMAS	3031	19th Nov. 1866	Reaping-machines.
Warmington, Edward James	3252	10th Dec. 1866	Improvements in breech-loading fire-arms, and in cartridges to be used therewith.
WARNER, ARTHUR	1273	4th May 1866	Compressing cotton or other light materials into trucks or wagons for transit upon railways or other roads.
Warner, Frederick	2315	8th Sept. 1866	Improvements in water-closets and in valves and regulating apparatus for the same and other purposes.
Warner, Joseph	418	9th Feb. 1866	Fish hooks.
WARREN, FREDERIC PELHAM -	439	12th Feb. 1866	Improvements in the construction of or arrangements for removing water from the interiors of sea-going and other vessels, and in closing or stopping leaks in such vessels.
Warren, Frederic Pelham -	830	20th March 1866	Frying-pans or utensils for cooking by frying.
Warren, Frederic Pelham -	894	27th March 1866	Improved cooking apparatus.
Warren, Frederic Pelham -	34 53	31st Dec. 1866	Improvements in cooking apparatus, parts of which improvements are applicable also to other purposes.
WARREN, WILLIAM	3242	8th Dec. 1866	Pumps.
WARRINER, GEORGE	2032	7th Aug. 1866	An improved lamp.
WARRY, ROBERT	2143	21st Aug. 1866	Improvements in breech-loading fire-arms and in cartridges for the same.
Warth, Albin	1880	19th July 1866	Improvements in sewing-machines and in the devices used to impart motion to the same or to other machines. (Patented by William Clark.)

Name of Patentee.	Number of Patent.	Date.		Subject-matter of Patent.
Warwick, James	2617	10th Oct.	1866	Sewing-machines.
WARWICK, JOHN ALFRED -	524	20th Feb.	1866	Railway signals.
Watkins, Francis	8410	28th Dec.	1866	Machinery for cutting, punching and shaping metals for screw nuts and like articles.
WATKINS, FRANCIS	8412	28th Dec.	1866	Machinery for shaping and forging metals into rivets, bolts, screw-blanks and like articles.
Watson, Alexander	1089	12th April	1866	Certain new and useful improvements in springs which are particularly adapted to use as railroad car springs, but may be applied to other purposes. (Patented by Alexander Horace Brandon.)
Watson, George	2841	2nd Nov.	1866	Reflectors and ventilators in connection with gas and other lights.
WATSON, WILLIAM	2632	11th Oct.	1866	Provision safes.
WATT, JOHN MILNE	235	24th Jan.	1866	An improved composition for coating materials and structures.
Watts, Charles James -	1213	30th April	1866	Feeding apparatus applicable to mills and machines for grinding, kibbling or crush- ing grain and other substances.
Watts, Charles James -	2858	14th Sept.	1866	Horse hay rakes. (Partly communicated by Daniel G. Adelsberger.)
Watts, Joseph	2744	24th Oct.	1866	Improvements in furnaces and fire-places, and in utilizing the waste heat of the said furnaces and fire-places, and in utilizing and obtaining motive-power from the air supplied to furnaces and fire-places.
Wavish, James	1188	27th April	1866	Certain improvements in gas lamps subject to the exposure of high winds and uncer- tain draughts.
Weatherdon, Baldwin Ful- [ford.	1009	9th April	1866	Improvements in treating lucern root for paper making and weaving purposes, as well as in abstracting soda, salts and coloring matters therefrom. (Communicated by Jean Pierre Caminade.)
WEATHERDON, BALDWIN FUL- [FORD.	1 470	26th May	1866	Gas pyrometers which may also be employed as thermometers. (Communicated by Joseph Jean Marie Durand and Celestin Pichoin.)
Weatherdon, Baldwin Ful- [ford.	1720	27th June	1866	Apparatus for preventing incrustation in steam-boilers. (Communicated by Joseph Toth.)
Wratherdon, Baldwin Ful- [ford.	2068	11th Aug.	1866	Thermometers and pyrometers. (Communicated by Charles Leroy, Joseph Jean Marie Durand and Celestin Pichoin.)
WEATHERDON, BALDWIN Ful- [FORD.	2122	18th Aug.	1866	An improved buckle. (Communicated by Charles Nivert.)
WEBB, BYRON JESSE PHILIP -	1825	11th July	1866	Certain improvements in connectors for unit- ing wires, bands, ropes or electric telegraph cables, or other like ropes or cables com- posed partly of wire and partly of hemp or other desirable compound material.
WEBB, THOMAS GEORGE -	1857	16th July	1866	Improvements in the manufacture of articles of pressed glass and in machinery or apparatus connected therewith.
Webb, Thomas George -	2278	5th Sept.	1866	Furnaces for the manufacture of glass, com- monly called melting furnaces.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WEBB, WILLIAM	- 538	21st Feb. 1866	Improvements in the manufacture of tubes and hollow cylinders, and in the machinery to be employed in the said manufacture.
WEBB, WILLIAM	- 1109	20th April 1866	Manufacture of ordnance.
WEBER, MICHAEL	- 3316	17th Dec. 1866	Construction of fire-arms.
WEBER, MICHAEL	- 3367	21st Dec. 1866	Improved apparatus for setting steel pens.
WEBLEY, THOMAS WILLIAM	- 3022	17th Nov. 1866	Breech-loading fire-arms.
WEBSTER, HENRY	- m	13th Jan. 1866	Machinery or apparatus employed in the manufacture of looped or knitted fabrics.
Webster, James	- 2095	15th Aug. 1866	Coating and recovering metals from chlorides and other solutions of metals.
WEBSTER, JAMES	- 8156	1st Dec. 1866	An improved lighting, heating and cooking apparatus.
WEBSTER, JOHN	- 1371	14th May 1866	A new method of hoeing, raking and rolling gravel walks, and in apparatus therefor.
WEDEKIND, HERMANN -	- 2799	30th Oct. 1866	Improvements in grinding, crushing or reducing dry substances, and in the apparatus or means employed therein or in connection therewith. (Communicated by Frederick Hoffmann.)
Wedlake, Henry Thomas	- 1144	23rd April 1866	Construction of harmoniums.
Wedlake, Thomas William	710	8th March 1866	Apparatus for distributing water and liquid manure.
Wedlake, Thomas William	1557	5th June 1866	Construction of irrigators.
WEED, ALFRED	- 2548	3rd Oct. 1866	Machinery for cutting files and rasps. (Patented by William Robert Lake.)
WEED, ALFRED	2549	3rd Oct. 1866	File cutting machinery. (Patented by William Robert Lake.)
WEICHERT, WILLIAM -	2446	22nd Sept. 1866	Construction and arrangement of chronometers, barometers and thermometers.
WEILD, WILLIAM	2148	22nd Aug. 1866	Improvements in treating carrigeen or Irish moss, sea-weed and like plants, to reduce them into a state of powder or meal, and in arrangements and apparatus to be used for the purpose.
WELBOURNE, WILLIAM -	1684	25th June 1866	Certain improvements in canisters for containing tea or other substances.
Welch, Edward John Cow- [Ling.	ı	16th Feb. 1866	Improved apparatus for carburetting air and gas.
WELCH, WILLIAM	580	24th Feb. 1866	Manufacturing and applying argillaceous, calcareous, silecious and metal composition cements.
WELCH, WILLIAM	2168	23rd Aug. 1866	Improvements in the manufacture of cement compositions, and in the method of applying and securing plastic cements to iron and other surfaces.
WELDON, WALTER	627	1st March 1866	A new process for obtaining soda from common salt.
WELDON, WALTER	628	1st March 1866	Manufacture of soda from common salt.
WELDON, WALTER	629	1st March 1866	Manufacture of soda from common salt.
WELDON, WALTER	1355	11th May 1866	Improvements in the production of sulphide of sodium and in the treatment thereof for the manufacture of soda.
WELDON, WALTER	1948	26th July 1866	Manufacture of chlorine.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WELDON, WALTER	2133	20th Aug. 1866	Improvements in the construction of ord- nance, partly applicable also to other pur- poses.
WELDON, WALTER	2768	26th Oct. 1866	An improved method of decomposing chloride of sodium and other compounds, by means of steam.
Wells, George Mellen -	1995	2nd Aug. 1866	A new or improved implement for the use of boot and shoemakers. (Patented by John Henry Johnson.)
WELLS, JOSEPH	1073	16th April 1866	Apparatus for sifting flour and other substances. (Patented by John Henry Johnson.)
WELLS, WILLIAM	447	13th Feb. 1866	
Wells, William Mirabeau	528	20th Feb. 1866	A double action harvesting and mowing- machine.
Welton, Thomas	2817	31st Oct. 1866	A new metallic brush.
WENHAM, FRANCIS HERBERT	1571	7th June 1866	Apparatus for aërial navigation.
Wenner, Carl	891	27th March 1866	Steam turbines.
WENZEL, PHILIPP	4	1st Jan. 1866	A new or improved material or composition of materials suitable as a substitute for leather in various applications. (Patented by Martin Löhren.)
WERLY, LEON MAXE	1168	26th April 1866	Crinoline skirts. (Patented by Henri Adrien Bonneville.)
West, Matthew	2537	3rd Oct. 1866	Fish-tail gas-burners.
WESTCOTT GEORGE RICHARD	2818	10th Sept. 1866	Apparatus for lighting the floats of lights in theatres and other places.
WESTHEAD, ALBERT	1456	24th May 1866	Apparatus employed in laying electric tele- graph cables.
Westley, Thomas	1862	17th July 1866	Certain improvements in flyers for spinning, roving or slubbing cetton or other fibrous substances.
WESTMACOTT, PERCY GRAHAM [BUCHANAN.	825	20th March 1866	Pillar cranes.
WESTMACOTT, PERCY GRAHAM [BUCHANAN.	3061	21st Nov. 1866	Improvements in machinery for conveying, distributing, cleaning and conditioning corn and grain, also applicable for other articles in bulk.
Weston, Thomas Aldridge -	1196	27th April 1866	Ratchet braces and levers,
WETHERED, EDWIN ROBERT -	292	30th Jan. 1866	Construction of stands for bassinettes or child's cots.
WETHERED, EDWIN ROBERT -	790	17th March 1866	A new and improved method of indicating the shot mark on a target at ball prac- tice.
WETHERED, GEORGE	2736	23rd Oct. 1866	Improved apparatus for washing clay and other earthy matters.
WETMORE, WILLIAM LYMAN -	2104	16th Aug. 1866	Rudders for ships and other water craft. (Patented by William Clark.)
WEVER, ALBERT	1440	22nd May 1866	Machinery or apparatus to be employed in dyeing yarns. (Patented by William Edward Newton.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Whalley, Edward	2074	13th Aug. 1866	Improved machinery to be employed in the manufacture of banding or twine from cotton, worsted, linen or silk "cop bottoms," which machinery is also applicable to the manufacture of banding or twine from threads prepared for that purpose.
WHALLEY, JOSHUA	515	19th Feb. 1866	Means of or apparatus to be employed for cutting fustians or other similar fabrics.
WHEELDON, FREDERICK RI-	463	14th Feb. 1866	Certain improvements in casting chilled rolls.
WHEELDON, WILLIAM	536	21st Feb. 1866	Stop cocks.
WHEELER, GEORGE ALFRED -	. 188	20th Jan. 1866	An improvement in pen-holders, consisting of an arrangement for supplying the pen with ink.
WHEELER, GEORGE PRINTY -	955	4th April 1866	An improved domestic polishing powder.
Wheeler, John Francis -	41	5th Jan. 1866	An improved apparatus for warming feet.
WHEELER, JOHN JACKSON -	1961	30th July 1866	Tipping walking-sticks and the sticks and ribs of sunshades, parasols and umbrellas, with glass.
WHEELER, NORMAN WILLIS -	115	13th Jan. 1866	Means or apparatus for condensing steam and other vapors, and for refrigerating fluids.
WHEELHOUSE, THOMAS	2346	12th Sept. 1866	Apparatus for sanitary purposes.
WHELPLEY, JAMES DAVEN- [PORT.	1471	26th May 1866	Use and application of fuel, and of chemical reagents to eliminate its impurities or those of the substances it is to heat.
WHELPLEY, JAMES DAVEN- [PORT.	1492	29th May 1866	An apparatus and process for removing dust and gases from air, which they call a draft and spray wheel.
WHELPLEY, JAMES DAVEN- [PORT.	1493	29th May 1866	An improved process and apparatus for obtaining metals and saleable products from ores and minerals, adapted particularly to the reduction of sulphurets.
WHIPPLE, CULLEN	2190	25th Aug. 1866	Combing wool and other fibre. (Patented by George Tomlinson Bousfield.)
WHITAKER, JOHN	388	8th Feb. 1866	Certain improvements in mechanism for opening and cleaning cotton and other fibrous materials.
WHITAKER, JOHN	1621	14th June 1866	1 . "
WHITAKER, JOSEPH	2752	25th Oct. 1866	Improved signalling apparatus for use on railways.
Whitaker, Thomas	2448	24th Sept. 1866	Construction of stoves or other heating apparatus for warming and ventilating public and private buildings, baths, hothouses and drying houses.
WHITBY, THOMAS	2228	29th Aug. 1866	Constructing vessels of war and other struc- tures required to be rendered shot proof.
WHITBY, TIMOTHY	1670	22nd June 1866	Springs for railway and other carriages.
Wнітву, Тімотну	3352	20th Dec. 1866	Construction of vessels of war and other structures requiring to be rendered shot-proof.
WHITE, DAVID BLAIR	: 11 90	27th April 1866	Ventilators for windows and other like open- ings.
WHITE, GEORGE	183	15th Jan. 1866	Gas burners. (Communicated by Mr. Ferdinand Küp.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WHITE, GEORGE	928	31st March 1866	Apparatus for indicating and registering the variations in pressure and working of the steam in the cylinders of steamengines. (Communicated by Mr. Pietro Monte.)
WHITE, GEORGE	1088	18th April 1866	1 .
White, George	2270	4th Sept. 1866	
WHITE, GEORGE	2934	10th Nov. 1866	An improved steam-engine. (Communicated by Mr. Ernesto Ansaldi.)
WHITE, HENRY BURT	2098	15th Aug. 1866	Apparatus for detaching ships.
White, John	1849	10th May 1866	Manufacture of hair felt and in apparatus therefor.
White, John	1514	31st May 1866	Improvements in the construction of parts of ships and other vessels, and in the mode or method of using or employing such parts as a means of saving life at sea and for other purposes.
WHITE, THOMAS ROBERTS -	2422	21st Sept. 1866	An improved fabric to be used for the manufacture of driving belts, hose and for other useful purposes. (Patented by George Davies.)
WHITE, WILLIAM HENRY	2299	7th Sept. 1866	Improvements in hats or coverings for the head, parts of which improvements are applicable to parasols and fans. (Patented by John Henry Johnson.)
WHITEHEAD, GEORGE	2965	13th Nov. 1866	Chimney tops or cowls.
WHITEHEAD, HENRY WAL- [TON-	2832	1st Nov. 1866	Means or apparatus for combing cotton and other fibres.
WHITEHRAD, JAMES	2978	14th Nov. 1866	Looms for weaving.
Whitehead, James Heywood	499	16th Feb. 1866	Manufacture of fabrics composed of india- rubber and cotton or other vegetable fibres.
Whitehead, James Heywooi	501	16th Feb. 1866	Manufacture of endless cloths.
Whitehead, James Heywool	1	16th Feb. 1866	Apparatus for heating the feed water for steam-boilers.
Whitehead, John	2644	12th Oct. 1866	fibrous substances.
WHITEHEAD, THOMAS	936	2nd April 1860	thread, twine, cords or ropes.
WHITEHEAD, THOMAS	2644	12th Oct. 186	fibrous substances.
WHITEHEAD, THOMAS KAY -		11th April 186	Apparatus for cleaning the roller beams and fly boards of machinery used for preparing and spinning cotton and other fibrous materials.
WHITEHEAD, WILLIAM EDWAR	1906	23rd July 186	Machinery or apparatus for cleaning and preparing cotton or other fibrous substances.
WHITEHORN, WILLIAM ROBER	2771	26th Oct. 186	Improvements in the manufacture of safety fuzes, and in the machinery, apparatus or means employed therein. (Patented by James Harebooth Gresham.)
WHITLEY, THOMAS	450	13th Feb. 186	Means or apparatus for combing wool and other fibres.
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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
Whitley, Thomas	1071	16th April 1866	Machinery for combing wool or other fibrous substances.
WHITLEY, THOMAS	8087	19th Nov. 1866	Machinery for combing wool and other fibre.
WHITNEY, EDWARD AUGUSTUS	873	24th March 1866	An improved pencil for writing or marking upon textile fabrics. (Patented by Alfred Vincent Newton.)
WHITTAKER, JAMES	2004	3rd Aug. 1866	Ladies' dress suspenders.
WHITTAKER, WILLIAM	858	23rd March 1866	Improvements in lubricating the journals of shafts, which said improvements are also applicable to the lubrication of the bear- ings of axles used in other machinery.
WHITTE, GERARD DE	277	29th Jan. 1866	Construction of breaks for carriages.
WHITWORTH, JOSEPH	2146	21st Aug. 1866	Cartridges for ordnance.
Whitworth, Joseph	2522	29th Sept. 1866	Improvements in casting iron and steel, and in apparatus employed for this pur- pose.
Wiard, Norman	2687	17th Oct. 1866	Means for preventing, indicating and correcting an undue degree of superheating of steam in steam-boilers, and for promoting an equality of temperature in the parts, for the more economical working thereof and for the prevention of explosions. (Patented by George Haseltine.)
Wibratte, François	222	23rd Jan. 1866	A new or improved vehicle for carrying the electric wires in submarine telegraphs.
Wiegand, S. Lloyd	3106	26th Nov. 1866	An improved process for extracting oil and paraffine from bituminous substances, such as peat or coal. (Patented by William Edward Newton.)
Wigham, John Richardson	2871	6th Nov. 1866	Improvements in illuminating lighthouses, private residences, railway stations, mills, factories and other buildings, and in apparatus and gas-burners employed for that purpose.
WIGZELL, EUSTACE	650	. 3rd March 1866	Improved means or apparatus for drying steam, also for heating the feed water of stationary boilers.
Wilbur, Benjamin	1804	9th July 1866	An improvement applicable to bobbins used in preparing and spinning machinery. (Patented by Alfred Vincent Newton.)
WILBY, WILLIAM	3426	29th Dec. 1866	Improvements in the manufacture of straps or belts for driving machinery, and in a new or improved construction of joint or coupling for the ends of such and other like belts.
WILCOX, DANIEL HAND -	720	9th March 1866	Weighing scales. (Patented by Edward Thomas Hughes.)
Wilcox, John	3372	21st Dec. 1866	Screw valves. (Patented by William Clark.)
Wilcox, Stephen, jun'	8452	31st Dec. 1866	Improvements in the method of effecting the cut-off in steam-engines, and also in the regulator for controlling the speed of steam-engines. (Patented by George Tomlinson Bousfield.)
WILD, MATTHEW	1813	11th July 1866	A new and improved arrangement of furnace to be applied to steam-boilers, which is also applicable for other purposes.

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Name of Patentee.	Number of Patent.	Date.		Subject-matter of Patent.
WILDE, HENRY	8209	6th Dec.	1866	Electro-magnetic and magneto-electric machines.
Wilde, Horace	276	27th Jan.	1866	New or improved means or apparatus for effecting communication between guards and passengers in railway carriages.
WILEY, ALEXANDER	3058	21st Nov.	1866	Improved machinery for manufacturing spikes and rivets. (Patented by Alfred Vincent Newton.)
WILEY, WILLIAM EDWARD -	1839	13th July	1866	Improvements in holders for marking materials, which improvements are also applicable as holders for other substances.
WILKINSON, ALBERT SAYLES	1360	llth May	1866	Shoes and other appliances for the protection of the feet and ankles of horses and other animals. (Patented by William Clark.)
Wilkinson, John, jun ^r -	2804	30th Oct.	1866	Improved apparatus to be used in connection with milling machinery.
WILLAN, ROBERT	28	4th Jan.	1866	Power looms.
WILLANS, JACOB GEOGHEGAN	702	8th March	1866	Improvements in puddling iron and in apparatus employed therein.
WILLIAMS, GEORGE	2578	6th Oct.	1866	Hoisting apparatus and cars for mining purposes. (Patented by William Clark.)
WILLIAMS, HENRY HEADLY -	2821	31st Oct.	1866	Fastenings and backing for armour plates. (Communicated by John Gregory.)
Williams, James	170	18th Jan.	1866	Improved sheets, plates or apparatus to facilitate improvement in handwriting.
Williams, John	2342	12th Sept.	1866	Two-wheeled carriages.
WILLIAMS, LEWIS EDWARD -	2058	10th Aug.	1866	Explosive shells.
WILLIAMS, ROBERT THOMAS -	2729	23rd Oct.	1866	A new or improved markers' butt or mant- let, together with an improved danger flag and signals for rifle shooting.
Williamson, John	3214	6th Dec.	1866	Manufacture of alkalies.
WILLIAMSON, THOMAS	523	20th Feb.	1866	Valves.
WILLIAMSON, VALENTINE -	2644	12th Oct.	1866	Machinery for combing wool and other fibrous substances.
WILLINGTON, THEOPHILUS [ALFRED GILBERT.	346	3rd Feb.	1866	Apparatus for heating conservatories, apartments or boilers, by means of gas.
Willis, HENRY	508	17th Feb.	1866	Mechanism for converting rotary motion into reciprocating motion.
WILSON, EDWARD BROWN -	80	10th Jan.	1866	Furnaces.
Wilson, Edward Brown -	2625	11th Oct.	i i	Furnaces.
Wilson, Edwin	1101	: •		Breech-loading fire-arms.
WILSON, GEORGE RATFORD -	1632	16th June		An improved vermin trap.
Wilson, George Rowe	1944	26th July	1866	An apparatus for lowering and raising window-blinds, curtains, maps and the like.
Wilson, George Rowe -	2018	6th Aug.		Metallic mirrors.
WILSON, GEORGE ROWE -	2097	15th Aug.		Communication between the guard and passengers or any other persons in a railway carriage or train.
WILSON, GEORGE ROWE -	2098	15th Aug.		A pickle piercer.
WILSON, GEORGE ROWE -	2099	15th Aug.		Kites.
Wilson, Henry	13	2nd Jan.	1866	Improved means or apparatus for lifting and lowering weights.

Wil]		Number	ICAL INDEX	- J		W
Name of Patentee.		of Patent.	Date.		Subject-matter of Patent.	
Wilson, Henry	-	598	27th Feb. 18	866	Sawing machinery.	
Wilson, Henry	-	1419	19th May 18	366	Cocks or taps for the attachment of pi with soldered or plumbers' joints.	ipe
Wilson, James	-	2280	5th Sept. 18	366	Street gas lamps.	
Wilson, James Esson -	-	1718	27th June 18	366	Apparatus for finishing tobacco.	
Wilson, John Hays -	-	1134	21st April 18	366	An improved apparatus for the distillat of sea water on board ships, and for he ing the feed water therefor, parts of wh are also applicable to the heating of portion of the vessel, or for heating of servatories and other buildings.	eat hic an
WILSON, LEWIS	-	2618	10th Oct. 18	366	Improvements in heating baths and apparatus for the same.	iı
WILSON, ROBERT	-	2078	14th Aug. 18	366	Certain improvements in the construct and mode of working calendars mangles used in finishing textile fabric	a nd
Wilson, Samuel	•	8885	19th Dec. 18	366	An improved fastening for baling bands.	
Wilson, Thomas	•	808	19th March 18	866	Machinery for preparing, spinning a twisting flax, cotton, wool and of fibrous substances.	
Wilson, Thomas	•	864	23rd March 18	866	Improvements in breech-loading fire-ar and in cartridges for breech-loading f arms and ordnance.	
WILSON, THOMAS	-	2016	4th Aug. 18	366	Improvements in breech-loading fire-ar and in cartridges for breech-loading arms, and in converting muzzle-load fire-arms into breech-loading fire-arms	fire lin
Wilson, Thomas	-	2544	3rd Oct. 18	366	Manufacture and construction of bree loading fire-arms.	ech
Wilson, Thomas	•	2748	24th Oct. 18	366	Improvements in the manufacture and c struction of breech-loading fire-arms, in cartridges for breech-loading fire-arm	an
Wilson, Thomas	-	8183	4th Dec. 18	366	Manufacture and construction of cartrid for breech-loading fire-arms.	lge
Wilson, William Newto)N -	• 475	14th Feb. 18	366	Sewing-machines.	
Wilson, William Virgo	•	907	29th March 18		Manufacture of leather cloth.	
WIMPENNY, THOMAS -	•	1354	11th May 18	366	Certain improvements in furnaces emplo in generating steam.	ye
Winans, Thomas	-	861	23rd March 18		Steam-engines and boilers.	
Winans, William Louis	-	861	23rd March 18		Steam-engines and boilers.	
WINBY, CLIFFORD ETCHES		526	20th Feb. 18		Improvements in the construction of rails wheels and in attaching them to the axles, part of which improvements applicable to other wheels.	hei
WINBY, CLIFFORD ETCHES	3 -	579	24th Feb. 18	366	Improvements in the application of po in actuating rolls in rolling metals.	
WINBY, FREDERICK CHAR	LES	526	20th Feb. 18	366	Improvements in the construction of rail- wheels and in attaching them to the axles, part of which improvements applicable to other wheels.	hei
Winby, Frederick Char		579	24th Feb. 18		Improvements in the application of power actuating rolls in rolling metals.	e i
WINCHESTER, OLIVER FIS	HER	2224	29th Aug. 18	į	Repeating fire-arms. (Patented by Edward Thomas Hughes.	.)
WINDER, WILLIAM HENE	Y -	2674	16th Oct. 18	366	Manufacture of reflectors. (Patented by Alfred Vincent Newton.))

Name of Patentee.	Number of	Date,	Subject-matter of Patent.
	Patent.		
WINDHAUSEN, FRANCIS [JOSEPH.	1146	23rd April 1866	Engines worked by steam or other fluid.
WINDLE, GEORGE BARNES -	246	25th Jan. 1866	Manufacture of boots and shoes. (Patented by John Piddington.)
WINDLE, GEORGE BARNES -	2028	7th Aug. 1866	Construction of portable lanterns.
Winkle, Jacob Martin Van	2345	12th Sept. 1866	An improved mode of and means for uniting and securing the ends of bands or hoops designed for baling cotton, wool and other substances.
WINKLEY, SWAIN	575	24th Feb. 1866	Construction of railways. (Patented by George Haseltine.)
WINSTANLEY, DAVID, junt	324	2nd Feb. 1866	Producing printing surfaces by the aid of photography.
Winstanley, David, junt	8177	! !	Improvements in obtaining basso-relievo or other such designs in relief and also in depression, by the aid of photography.
WINTER, WILLIAM	44	5th Jan. 1866	Certain movable parts of locomotive, stationary and marine engines.
WINTER, WILLIAM	247	25th Jan. 1866	An improved feed motion for sewing-machines.
Wise, Francis	60	9th Jan. 1866	Flasks, bottles and other similar receptacles. (Communicated by William Thomas Fry.)
Wise, Francis	253	25th Jan. 1866	Improvements in the boxes or bearings of axles of railway and other similar carriages, and in the method of or arrangements for lubricating such axles. (Communicated by Wilhelm Basson and Ferdinand Lüdecke.)
Wise, Francis	956	4th April 1866	Effecting the combustion of fuel. (Communicated by Jacob Bührer and Charles Hamel.)
Wise, Francis	1812	8th May 1866	Axle boxes and bearings for the journals of railway carriages.
Wise, Francis	1694	25th June 1866	Apparatus for generating steam or heating liquids.
Wise, William, the younger -	2489	22nd Sept. 1866	Construction of scythes.
WISHART, FREDERICK AUGUSTUS	595	27th Feb. 1866	Detonating and light signals for railways and other uses.
WISHART, WILLIAM	1030	11th April 1866	Apparatus for producing loom-sewed fabrics.
Wissoco, Paul Emile, De -	3212	6th Dec. 1866	Treatment of ores of metals of which the sulphates are soluble in water.
Woller, Friedrich Ehreg -	1114	20th April 1866	Machinery for the manufacture of looped fabrics.
Wolstenholme, John	506	17th Feb. 1866	Apparatus for shaving and cutting metal bars and metal tubing.
Wolstenholme, John	2552	4th Oct. 1866	Improvements in tube and bar cutters, and in apparatus connected therewith.
WOLSTENHOLME, ROBERT -	432	12th Feb. 1866	Certain improvements in the manufacture of textile fabrics termed "moleskins" or imperials and velveteens.
Wood, Amos Lawrence -	2112	17th Aug. 1866	Certain new and useful improvements in sewing machines. (Communicated by William Chicken.)
Wood, Charles	\$101	24th Nov. 1866	Apparatus for measuring the temperature of currents of air or fluid.

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Name of Patentee.		Number of Patent.	Date.		Subject-matter of Patent.
Wood, Hamilton	-	999	7th April	1866	An improved process and apparatus for pro- ducing ornamental surfaces on wood.
Wood, James Templeton	-	1484	21st May	1866	Compressing and packing cotton, wool, jute and other similar bulky articles.
Wood, James Templeton	-	2487	26th Sept.	1866	Means of and apparatus for compressing and packing cotton, wool, jute and other similar bulky articles.
Wood, James William	-	500	l6th Feb.	1866	Improvements in the manufacture of pom fret or liquorice cakes, rolls and pipes and of lozenges and other similar articles of confectionery, and in apparatus to be used in the manufacture of such articles.
Wood, James William	-	2512	28th Sept.	1866	Improvements in the manufacture of loz- enges, and of pomfret or liquorice cakes and other similar articles of confectionery and in apparatus for the same.
Wood, James William	-	8277	13th Dec.	1866	Manufacture of fibrous yarns or threads.
Wood, John Angell -	-	1656	20th June	1866	Machinery for the manufacture of meta cartridges. (Patented by John Garrett Tongue.)
Wood, Josiah	-	129	15th Jan.	1866	Improved self-acting jiggers, lathes and wheels for potters' use and other purposes
Wood, William	-	500	16th Feb.	1866	Improvements in the manufacture of point fret or liquorice cakes, rolls and pipes, and of lozenges and other similar articles of confectionery, and in apparatus to be used in the manufacture of such articles.
Wood, William	-	2512	28th Sept.	1866	Improvements in the manufacture of lozen ges, and of pomfret or liquorice cakes an other similar articles of confectionery, and in apparatus for the same.
Wood, William	-	2935	10th Nov.	1866	Machinery for cutting or dressing stone for building purposes, and for moulding and turning same for architectural purposes.
WOOD, WILLIAM	-	327 7	13th Dec.	1866	Manufacture of fibrous yarns or threads.
Wood, William	-	3318	17th Dec.	1866	Breech-loading fire-arms.
Woodall, Solomon -	-	2345	12th Sept.	1866	An improved mode of and means for uniting and securing the ends of bands of hoops designed for baling cotton, woo and other substances.
Woodbury, Walter Bent	LEY	105 .	12th Jan.	1866	An improved method of and apparatus for finishing impressions (in colored gelatin or other soluble material) obtained from metallic or other plates produced by the aid of photography.
Woodbury, Walter Bent	LEY	505	17th Feb.	1866	Production of ornamental surfaces fo jewellery and other purposes.
Woodbury, Walter Bent	LEY	1815	8th May	1866	Producing designs upon wood and other materials, by the aid of photography.
Woodbury, Walter Bent	LEY	1918	24th July		An improved method of and apparatus for printing from metal intaglios (obtained by the aid of photography) in gelatinous of other semi-transparent ink.
Woodman, James	-	1854	16th July		Means of fixing the covers of gas retorts.
Woodroffe, Solomon V	VIL-	2920	9th Nov.	1866	Construction or privies, dust holes, com modes, water-closets, ash pits and tan covers, and for other similar purposes.

Name of Patentee.	Number of Patent.	Date.		Subject-matter of Patent.		
Woodruff, George Baldwin	209	22nd Jan.	1866	Construction of sewing-machines.		
WOODRUFF, GEORGE BALDWIN	1936	25th July	1866	Construction of sewing-machines.		
Woods, Arthur	3290	14th Dec.	1866	An improved hammock cot and means for suspending the same.		
Woods, John Edward Ten- [nison.	1689	18th June	1866	Manufacture of pigments.		
Woodward, John	810	31st Jan.	1866	Steam-boilers or generators.		
Woodward, Thomas	1489	29th May	1866	An improved method of extracting cartridge and cartridge cases from fire-arms.		
Woodward, Thomas	2675	16th Oct.	1866	Machinery or apparatus for raising or eleva- ting sewage water and other liquid matters also applicable as a means of affording motive-power from water.		
Woodward, William	810	31st Jan.	1866	Steam-boilers or generators.		
Woolf, Sydney	8120	27th Nov.	1866	Improved means and machinery for the ma nufacture of earthenware and other article made from plastic materials.		
Woollatt, Richard	3011	16th Nov.	1866	A new or improved instrument to be em ployed in producing local ancesthesia.		
Wootton, Henry	1766	3rd July	1866	Construction and arrangement of self-acting railway signals.		
Wornum, Alfred Nicholson	1883	19th July	1866	Pianofortes.		
Worrall, John Mayo	81 94	5th Dec.	1866	Certain improvements in the method of finishing certain descriptions of piles fabrics, and in apparatus connected there with.		
Worth, Robert James	2068	15th Aug.	1866	Certain improvements in direct acting steam pumps.		
Worthington, Joseph	358	6th Feb.	1866	Apparatus for manufacturing dishes, plate and other similar articles, from pulverized clay or dust or other suitable materials.		
WRAY, WILLIAM	920	31st March	1866	Achromatic object glasses.		
Wren, Henry	2176	24th Aug.	1866	Machinery for winding yarn and thread.		
WREN, HENRY	3268	13th Dec.	1866	Machinery for dressing slates.		
Wrench, John Holmes -	2550	3rd Oct.	1866	Apparatus adapted to the representation of opaque objects to an enlarged scale.		
WREY, WILLIAM LONG	2657	13th Oct.	1866	Construction of ships and vessels with a view to speed and buoyancy.		
Wright, Benjamin	1806	8th May	1866	Cooking or kitchen ranges.		
Wright, Francis	84	4th Jan.	1866	A new preparation of fruit beverages of stimulating character.		
WRIGHT, HENRY BANKS -	2141	21st Aug.	1866	Laying and sustaining in position telegraph cables.		
Wright, John	2662	15th Oct.	1866	Ornamenting bedsteads.		
WRIGHT, ROBERT ALFRED -	1599	12th June	1866	Furnaces, furnace doors and furnace bars.		
WRIGHT, WILLIAM	2024	6th Aug.	1866	Machinery or apparatus for stamping, crushing and pulverising ores and other hard substances, parts of which improvement are applicable to power hammers. (Patented by John Henry Johnson.)		
Wrigley, Thomas	1606	13th June	1866	Certain improvements in carding-engines.		
WYATT, WILLIAM	1719	27th June	1866	Screens for screening grain and other sub- stances.		

Name of Pate	Patentee. Number of Patent		Date.		Subject-matter of Patent.
WYLD, JOHN -		159	17th Jan.	1866	Machinery or apparatus for warping and making leashes in warps, for tape-siting machines.
Wyley, Andrew		2642	12th Oct.	1866	Breech-loading fire-arms and bayonets for the same.
WYNN, WILLIAM	NATHANIEL	411	9th Feb.	1866	Travellers for warehouses, factories, building yards and other purposes.

Y.

YATES, JOHN WILLIAM -	- 1	761	14th March	1866	Spades, shovels, forks and other similar im-
•		10-		1000	plements and tools.
YEATES, ROBERT	-	599	27th Feb.	1866	A new or improved travelling knife for open- ing metal provision cases, and an apparatus to be used therewith.
Yeomans, John	-	1863	17th July	1866	An improvement in the manufacture of hats.
YORK, HENRY KINNAIRD	-	1291	5th May	1866	Manufacture of iron and steel.
York, John Oliver -	-	2191	25th Aug.	1866	Ships or vessels.
Young, Arthur	-	16	2nd Jan.	1866	Type distributing and composing machines.
Young, Arthur		1565	6th June	1866	Construction of streets, roads and footways.
Young, HENRY BURGESS	-	460	14th Feb.	1866	Screw propellers.
Young, James	-	478	15th Feb.	1866	Distilling coal shales and other substances.
Young, James - •	•	625	1st March	1866	Improvements in distilling coal shales and other substances, and in the apparatus employed therein.
Young, James	-	992	6th April	1866	Distilling.
Young, JAMES, the younge	er -	1697	26th June	1866	Apparatus for the treatment of hydro-carbon oils.
Young, Robert Alfred	-	1771	4th July	1866	Busks of stays and corsets.
Young, William	-	16	2nd Jan.	1866	Type distributing and composing machines.
Young, William	-	44 5	13th Feb.	1866	Improvements in and applicable to grates and in the mode of fixing the same.
Young, William	-	1029	lith April	1866	Improvements in and applicable to grates, fire-places and furnaces.
Young, William	•	1278	4th May	1866	Improvements in the distillation of coal shale and other bituminous substances, to obtain oily matters therefrom, also in the redistillation of products thereby obtained.
Young, William	-	1565	6th June	1866	Construction of streets, roads and footways.
Young, William	٠.	2380	17th Sept.	1866	Manufacture of oil from shale and other bituminous substances.
Yule, John	-	1580	lst June	1866	Steam-engines.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
		Z.	
Zanni, Geminiano	600	27th Feb. 1866	Applying motive-power to sewing-machine for the purpose of rendering them sell acting.
Zanni, Geminiano	804	17th March 1866	Apparatus for obtaining motive-power.
Zanni, Geminiano	2080	7th Aug. 1866	Mechanism for obtaining and applying me tive-power.
Zeng, William Stuben De -	1874	14th May 1866	An improvement in metallic barrels an other vessels for containing oil, water an other fluids. (Patented by William Edward Newton.)
Zieglee, Martin	2586	3rd Oct. 1866	The production of and application of a imponderable fluid, together with the a paratus or means employed therein. (Patented by Clinton Edgcumbe Brooma:
ZIMMERMANN, CARL FRIEDE- [RICK.	2054	9th Aug. 1866	Musical instruments and notation. (Patented by William Clark.)
ZIMMERMANN, JOHN ULRICH -	1066	16th April 1866	Breech-loading fire-arms. (Communicated by Johann Jacob Peter.)
ZWANZIGER, HEINRICH	815	20th March 1866	Machinery for spinning and doubling. (Patented by Henry Bernoulli Barlow.)
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